GENIUS WITHOUT GENIUS:

The Autobiography of John Franklin

Vol. 2: Early Years in California

Apr. 20, 2018

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Arriving in San Francisco

Somehow I got from San Francisco Airport to downtown San Francisco. It seemed that all the newsracks had signs, "Herb Caen is Back!" Who was Herb Caen? I soon found out that he was a columnist for the *San Francisco Chronicle*. I began reading his column and continued to do so until his death 37 years later.

Hocking My Horn

It is traditional that a struggling jazz musician at one time or another in his career has to hock his horn, and so, when money was running low, I decided that's what I would do. I found a pawn shop off Market St. in San Francisco, walked in, asked how much they would give me for the horn. The guy behind the counter gave some ridiculously low figure like $30 even though it was a Bach Stradivarius. He explained how the deal worked: you left the horn, they gave you the money; the horn would be held for a year, then, if you came back within that time, you repaid the $30 plus the exorbitant interest rate. I am amazed now at my confidence in the guy's trustworthiness with an object that was most of my identity.

A Room in the Richmond District

Somehow or other, I found a room out in the Richmond District, around 45th Ave. It was in one of those traditional San Francisco houses that are packed next to each other, each with a postage-stamp-size lawn. There were no trees on the street. The landlady was Mrs. Gold. Her son, Curly Gold, also lived in the apartment and, as I soon found out, he led a country/western band. He looked like a stocky dwarf. He was friendly, eager to know about my experiences as a jazz musician.

The room I rented had apparently once been a living room: big, with heavy curtains, ancient furniture, an ornate desk, a mirror, a place straight out of the genteel nineteenth century. I thought: this isn't a place where you should *sleep*!

In the morning, I listened to the sound of the fog horns — the voice of eternity — coming through the drifting curtains of fog — listened to them as a profound music that demanded your full attention so you could interpret what they were saying.

After I found the room, I phoned R — to tell him where I was and why. He said that they had been looking for me high and low, thought I had drowned. For some reason I sensed him looking up to me for having put him in a definitely one-down position. I enjoyed hearing how they had been frantically looking for me. Thereafter I began a long series of letters to him, written from the depths of my loneliness, and each one typed and retyped so that each page was as perfect as I could make it. He chided me about this several times and I sensed that he felt it was almost effeminate. But I had no other choice because these letters were going to be part of my immortality.

Memories of the City

I made next-to-no effort to explore the City. I remember a little park with hard-sand walkways and some sort of succulent plants; whisps of fog; the gray ocean in the distance. Perhaps I dragged myself through the art museums once, maybe listened to some jazz in North Beach,

which I continued to do even after I moved from the City. But all I remember of those evenings is hearing the bassist Charles Mingus and his group perform at the Jazz Workshop. His contempt for audiences was well-known, and I remember him saying into the microphone, after he had completed a set, "So now you can go back to doing what you really came here for, namely, sit at your tables and talk." The only other club whose name I can recall now is Basin Street West I never went to the Black Hawk, which was located in another part of town, and which was an early venue for Dave Brubeck's group. I associate the club primarily with the the vibraphonist Cal Tjader, who often played there. My desperation at not being able to write anything but letters to R — left no room for pleasure or the satisfying of curiosity. Years later, when the City became the headquarters for the Beat movement, and the gays took over the Castro District, and the flower children set up camp in the Haight-Ashbury I felt the City and I had nothing to share — except for theater, which will be described later. I came to look on San Francisco as a city for freaks and the second-rate, at best, the genteel second-rate. In my nastier moments, I thought: the city where Danielle Steele chooses to live has nothing to brag about.

Working in a Government Warehouse

I got a job through Manpower, Inc., filling orders at a government warehouse in San Bruno. Except for the fact that there were no stairs to climb, and that the products were fire shovels, mail bags, rope, and related items, it was similar to the job at the drug warehouse in Troy. We had to punch a time card. Each of us clerks was given decks of IBM cards, each card containing an order for some item. We pushed a cart around between the shelves, filling it with the items on the cards. All day long they played Muzak in the background, including, over and over and over, "Tea for Two". The work was unbelievably boring, yet one guy who said he was an ex-English teacher said he had grown so attached to it that he was going to make a career out of it. Another guy remarked, as we were all leaving for lunch on day, after I had remarked about some book I was reading, "...that *Finnegan's Wake*, man..." It was clear he had never so much as opened the book, but somewhere had heard that Joyce wrote dirty books, so he assumed that this one, coming after the others, was the dirtiest of all.

In order to get to work on time, I had to take a bus from the corner of 45th Ave. at around six in the morning, when the sun wasn't even up .I hated this most of all — the waiting in the cold gray fog-dampened morning, the fog horns reminding me how time was passing, my chance to accomplish something important was passing — and so I was late once. They gave me a warning. Several days later, I was late again, but only by half an hour. One of the secretaries was standing in the doorway, arms folded, as I walked up. She said I had been terminated. I said I would gladly make up the time, even at no pay. She said sorry, but those were the rules. It was the first time in my life I had been fired.

My Mother Remarries

In 1960 my mother married Emil L —, an acquaintance of my father from his California days. He was a retired vice president of Wells Fargo Bank in San Francisco. According to my mother, they had been introduced by Uncle Gus, the friend of my parents whose visits my brother and I always looked forward to during our childhood. Emil had been courting her by letter and on one or two trips to the New York area. He was a Swiss and thus acceptable remarriage material. He was also well off, having been a vice president of the bank until his retirement in 1959. He was

then close to seventy. I don't remember our first meeting, except that somehow it involved driving in San Francisco. I do remember his sprightliness, the youthful man-of-the-world manner he had, like Uncle Gus, as he said, "Of course, we will have to have dinner together at Jack's" (which he pronounced "Chaks"), and which turned out to be one of San Francisco's oldest restaurants. He was short, had wavy white hair, a glint of gold showing when he smiled and was always addressed by the staff at Jack's and any other restaurant he took me to, as "Mr. L —" (with his full last name, of course). His first wife, Olga, had died of cancer. Members of the family said she had been an alcoholic. Many years later, my mother said that Emil and Olga were both from the same town in Switzerland, namely, Biel. She said Emil had allowed himself to be "taken in" by her. Her sister and brother were also alcoholics. My mother said that at one point Emil had told Olga to stop drinking or they would be divorced.

Like all Swiss men of his age and social position, he regarded a wife as a necessary appurtenance of a successful man. The woman cooked and served and arranged for the gardener and accompanied the man to important business occasions and had his children. The man in return provided for her, gave her respectability in the community. And that was about the size of it. "Sharing a life together" meant exactly that and no more. What else could there be?

When I first came to the house (at 600 15th Ave. in San Francisco), he proudly pointed out the Langenscheidt's volumes on the bookshelves in the den. These were thick home-study courses in the European and ancient languages. I remember he had one on Italian and one on Latin. He told me, and I believe it was the truth, that he had gone through both volumes in their entirety, a total (in the case of the Italian) of 36 lessons (or "letters", since each apparently came in the mail when the student had finished the previous one), for a total of 809 pages, plus seven appendices, the text for the entire book, except for the actual passages in Italian, in intimidating German gothic typeface. Sometimes he would recite lines from Ovid. God knows what incredible labor these studies had cost him, because the truth was he hadn't an ounce of critical ability, much less of literary creativity. He never thought about, questioned, what he read. For him, you did whatever was necessary to learn what the greats had said, and you agreed with them. He would attribute the greatness of Latin literature to the fact that the ancient authors understood "the genius of the language".

The bookshelves in the den also contained sets of English classics — Sir Walter Scott and Macaulay are two that come to mind; plus Dickens and Thackeray. They were beautifully bound, the edges of the pages gilt. He never gave the slightest suggestion that he had read any of them, or, at least, that they had made any impression on him.

I would sometimes think, "He is one of those whom I would have to please if I wanted to write a classic. Him and the professors. Jesus God! Far better to be a failure."

On the other hand he must have been good at his job at the bank. At one point he gave me a little 30-page booklet he had written:

FINANCING OVERSEAS
TRADE

An Address Delivered Before the
INSTITUTE OF WORLD TRADE
San Francisco, California
January 23, 1946

Together with

"UNIFORM CUSTOMS AND PRACTICE"
as amended, effective January 1, 1952

By E. L —
Vice President, Foreign Department
Wells Fargo, Bank & Union Trust Co.
San Francisco

It begins:

"In prewar times, foreign trade transactions have been financed by means of —

Open Accounts
Foreign Bills of Exchange
Bank Letters of Credit

"During the war, overseas shipments for allied nations had been flowing the theatres of war chiefly on Lend-Lease account. The momentum of the war and the subsequent relief programs are continuing, and many nations are still being supplied with goods and services on a scale unknown in prewar times.

"At some future time, however, the flow of merchandise to and from foreign countries will have to 'toe' the normal pattern of the fundamental economic laws, without which foreign trade is unthinkable. World commerce, sooner or later, will have to free itself from the shackles of exchange controls, quota restrictions, Government subsidy and unreasonable tariff walls. This task is, indeed, a difficult one, but it is not insurmountable."

Headings in the booklet are "The Import Letter of Credit", "Function of the Import Letter of Credit", "Export Letters of Credit", "Acceptance Credits", "Export Collections on the Far East", "Export Collections on Latin American Countries", and "Open Accounts".

I can only imagine the work that this self-made man, proud of his position in the bank, put into the preparation of an address on such an important topic before such an august body.

I don't know how much he was worth at the time he married my mother: certainly at least $3 million, including the house, which was substantial though it was not in a wealthy neighborhood. It always seemed to me the kind of house that a vice-president of Wells-Fargo should live in. I heard once, though I don't recall from whom, that he had weathered the 1929 Crash by simply keeping all his stocks, which included those of several oil companies. His investment strategy was a sound one up until the nineties, and had made wealthy men out of many immigrants who became professionals in this country: it was simply: buy the best companies and hold onto them.

As soon as my mother moved into Emil's house, she set about on a massive redecorating of the entire place, room by room.

"Let a woman in your life and your serenity is through,
She'll redecorate your home,

From the cellar to the dome,
And then go on
To the enthralling fun
Of overhauling you..." — Lerner and Loewe, "I'm an Ordinary Man", from *My Fair Lady*

Emil didn't know what to say. She spared no expense, especially as he was paying all the bills. Once in a while he would grumble to me and, I am sure, to members of his family. I seem to recall that some wood for the main staircase to the second floor had to be imported from Europe, and that it cost a fortune. When he protested, she expressed shock at his not understanding that such features were essential. It was years before she decided that enough had been done — or, I should say, before even she could think of nothing more that needed to be redone.

Beckman Instruments

Writing Field Service Manuals

I replied to help-wanted ads, got form-letter rejections back. I gravitated to technical writing because it was the only job I had heard about that combined writing and technical knowledge. I knew, though I hated knowing it, that there was something wrong with me when it came to engineering. I wasn't engineering material. But I also had the sneaking feeling that making complicated things clear was not an ignoble discipline. Beckman Instruments was one of the companies that didn't want me. The reason they gave was that I had no training in technical writing. I wrote back, asking them what school I should go to in order to study the subject. At about the same time, I came across an ad for a school that was offering a six-month course. So I wrote back to Beckman and asked whether they would reconsider if I enrolled in the course. They would. I was invited out for an interview. I took the Greyhound bus to Palo Alto bus station, which was then downtown. I didn't know how to get to the Beckman plant, which was several miles south in Stanford Industrial Park, so I took a taxi.

Ken Knapp in the Personnel Department was the guy who had encouraged the hiring manager, Dick Smith, to give me a chance. I was young, bright-eyed, and determined to get a job in an important part of the economy. Ken was a retired military man, with a full head of graying hair. As I learned later, he was in his mid-forties, had completed his military career, and was receiving some three-quarters of his military salary for the rest of his life, no matter what he might earn in addition.

Dick Smith was thin, had a boyish face, soft voice, and watery eyes. If he was standing when talking to you, he invariably had one hand in his pocket: I sensed he was basically a shy man. He was then, I think, Assistant Field Service Manager, under Bill Carlson, who was the Manager. On the basis of one interview, he hired me. The six-month course was never mentioned again and therefore, naturally, I never enrolled in it. I was now working at the company that ten years earlier had sold me the potentiometer I had so desperately sought when I was a ham radio operator[1].

Somehow, I suppose from a newspaper ad (why do we never remember these things?), I found a room in Palo Alto. It was in a rooming house on Hamilton Ave., a few blocks west of Middlefield Ave. Eugene O'Neill would have been able to make something out of the characters who lived there: Mandy, from Glasgow, with her flirtatious eye and magnificent Scottish accent. Another woman, a blonde, who, I was told, was a prostitute. And then there was the crippled woman who lived in the converted garage in back. Somehow or other I allowed myself to agree

1. See section, "The Regenerative Receiver", in Briarcliff High School chapter.

to take her to the movies. At exactly the time we were supposed to leave, perhaps even five minutes before, she was calling to me from the driveway down below. For reasons I no longer recall, we decided to sit in the balcony, which meant she had to make her way up the steep steps. She clung to my arm, clearly in fear of falling or dying or who knows what. My only thought, repeated over and over, was, "Please God let me out of here."

While I was living in the rooming house, I came across an article or in any case some words by an advertising executive, praising advertising as a basic force in the economy, allowing the consumer to make free choices in the market place, etc. I was furious. I wrote him a letter, arguing that the only kind of advertising that matched what he described was what appeared in the Classified section of the daily newspaper. He wrote back an unctuous reply that left me even angrier.

Palo Alto at that time was a nondescript suburban town and I hated it. I thought of it as a town for engineers who had done all the calculus problems with no questions asked, especially no questions regarding the nature of the infinitesimal. The nearest thing to a coffee shop was The Creamery, where I sometimes had a piece of apple pie and a cup of coffee. Then I moved to Blackburn Ave. in Menlo Park. Actually, my new place was a converted garage: a single large living space with a small bathroom in one corner. A few steps away was the house, occupied by the nice Mrs. —, a motherly type. She kept pigeons in a coop next to the side door of the garage, this being the entrance to my room, the normal large door for the car having been converted into a wall. I soon noticed the pigeons were engaged in pecking to death a weak one of their flock. He had a bald spot on the top of his head which appeared to be oozing some kind of liquid through little pin-sized holes in the naked skull. Every once in a while, one of the pigeons, would waddle over and peck that spot. The victim would dodge away, try to find a corner where he could have some peace. The others would let him alone for a while, then, quite casually, as though it were nothing personal, another would waddle over and give him a few more jabs in that spot.

At the time, I was reading a little compendium of Schopenhauer's works — one that I still have: *Schopenhauer: Selections*, ed. by DeWitt H. Parker, Professor of Philosophy, University of Michigan, Charles Scribner's Sons, N.Y., 1928. So the pigeon's behavior seemed entirely appropriate. I weighed what I assumed to be a fact, namely, that they were killing the weak one for the good of the flock, against what I also assumed to be a fact, namely, that if I saved him, just this one, pigeons would probably not become extinct. So I asked Mrs. — if I could put him in a separate cage, and she agreed. He seemed lonely — seemed to want to get back to his fellows, I suppose because any attention, even attention that is killing you, is better than none at all.

At home I lived like a refugee. I bought no furniture or decorations. Everything was Mrs. —'s. I bought a used, black, three-speed bike[1] and sometimes would ride to work, or to a coffee shop in Palo Alto at night. The headlight was driven by a generator powered by the rotating bicycle wheel. The little generator wheel hummed as it rubbed against the tire. As I rode, I would think about the fact that the brightness of the light was proportional to the speed at which you traveled. It made sense that the faster you rode, the brighter the light. But the slower you rode — was it really wise that the light should grow dimmer? I tried to reason out the ethics of that, the safety question. When it was absolutely impossible to postpone one day longer doing some laundry, I would pile my laundry on the bike and ride to a laundromat on Ramona St. in downtown Palo Alto. I parked the bike outside, went in (always with a book), and did my laundry. One

1. "The ... bike had to be English and a Rudge or Raleigh with Sturmey/Archer gears and handbrakes. These bikes also usually had a white patch on the rear fender and/or a reflector." — J.S.

night, when I came out, the bike was gone. I ran up and down the street. Like every loss of a possession, this one put me into the deepest despair. The bike was now in someone else's possession. It was being mistreated by some jerk of a kid, maybe some Mexican, who had no concern for its feelings, its loneliness at not being with its rightful owner. Even now, as I write this, I want to know where the bike is now, after some 40 years. I want to know its history, every moment of its existence since it was stolen.

I have no memory of a TV set. I probably didn't have one, because I do remember listening to the radio in the evenings. In particular, I remember an interview show featuring Les Crane.

"In 1961, he became a popular and controversial host for the radio powerhouse KGO (AM) in San Francisco. With KGO's strong evening signal reaching as far north as Seattle, Washington, he attracted a regional audience far outside the San Francisco area. A pioneer in the development of the radio talk show, Crane delighted and irritated callers and listeners with his forthright style and unwillingness to suffer fools quietly, often hanging up on callers in contravention of the polite ethos of the times." — "Les Crane", Wikipeda, Feb. 18, 2011.

I remember him carrying on for several evenings on the theme of dressing animals in clothes. He claimed that he was carrying out the wishes of an old lady who had stipulated in her will that her money be spent on clothing as many animals as possible, in particular, pets who lived in cities. Crane would challenge callers who thought the idea was nonsense to defend their views, arguing, for example, that common decency applied just as well to animals as it did to people.

Beckman made biochemical research instruments such as ultracentrifuges and electrophoresis machines and amino acid analyzers. Actually, this was the Spinco Division of the company, the name being that of a company Beckman had bought. The name was my first exposure to engineering cleverness with words — an ultracentrifuge *spin*s solutions in test tubes and a *co*mpany had been formed to manufacture the devices.

The president was Arnold O. Beckman, a scientist who had been a professor at the California Institute of Technology ("Cal Tech"), and had invented several of the scientific instruments the company later would sell. I recall seeing Arnold O. (as we all called him) only once. He came to Spinco for a visit, and gave a speech to us in a big open room, all employees present. He was already in his sixties then, a bald, impressive looking man who, to us, of course, was already an old man. He lived to be 104, dying in 2004, his company still successful at the time of his death. In my briefing on my first day at the company, I was impressed by something that Dick Smith said: "We work a forty-hour week here. If you find yourself having to consistently work more than that, there is something wrong, and I'd like you to come and see me about it."

They put me in an office with George Flatter, who was Service Manager. It was on the second floor, next to Dick Smith's office in the northwest corner of the building. George was articulate, good-hearted, always ready to banter with the other members of the department. My first assignment was to write the field service manual for the Model E Ultracentrifuge, the division's leading product. I would work under the direction of Rudy Guyon, who was a regional service manager. He had a friendly, lackadaisical manner, spoke with a slight southern accent. He wore glasses. His face was pockmarked from acne.

I still have a copy of the manual I wrote, with my painstakingly hand-drawn illustrations of the refrigeration system and my elaborate prose explanations of simple equations. I was completely dedicated to doing the best job that had ever been done on a field service manual; I took hours, days, on some paragraphs. My co-workers, and the boss, were impressed, not with my technical knowledge, which remained very low, but with my determination.

I worked for Field Service. On the other side of the building, also on the second floor, was the Technical Publications Dept., managed by Bruce Finson. Inevitably, I met him and the two women who worked for him, Melva Vollersen and Mari-jo Zeller, whose maiden name, she later told me, was Neola. Both women were about my age, Bruce, I think, a little older. He seemed eager to become a friend. Once he invited me out to his little house in Palo Alto, near the Embarcadero. His wife was Japanese and he was clearly proud to have married into such a distinguished nationality. They already had a child, I think.

He gave me the first of the nine marijuana cigarettes I have smoked in my life. In those days, the term of choice was a "joint". I can't remember exactly where I smoked it. I think it was in my room in the converted garage. Marijuana, it turned out, had a way of making abstractions concrete in my mind. After I got high, my thoughts suddenly seemed to become big trucks backing into the huge, empty garage which was my brain, a slow late-at-night process I was content to observe from — the other end of the garage. Music — in particular, a melody — became the hump of a groundmole's tunnel moving through a lawn. All this, as far as I was concerned, was much more than I needed in my mental life, so I had no inclination to continue using the drug. My feeling was that anyone who needs that much to stimulate his imagination is probably not going to accomplish much in life anyway.

I Am Made a Manager

Technical Publications was charged with doing manuals for the people who actually used the equipment. One day, for reasons I never discovered, Bruce Finson lost his temper, walked up to the door of Bill Carlson (who was either Dick Smith's boss, or who had replaced Dick when he was promoted, I no longer remember). Bruce banged on the door, demanded to be heard. Sounds of argument could be heard. A few days later we heard that Bruce had been fired. In those days you couldn't appoint a *woman* to be a manager (it just wasn't done — they were too emotional, and got pregnant), so they appointed me. I was then 24. The Code of course demanded that I accept, even though I wanted nothing more than not having to accept.

I sensed the two women watching me with barely concealed smiles to see if I could really handle the job that they knew they could handle much better. "We are letting you be in charge," was the impression I got from them.

Melva and Mari-jo

Melva was a sweet, well-adjusted woman whom anyone would have welcomed as an employee. Mari-jo was something else. For one thing, she was what the French call *belle-laide*, "beautiful-ugly". She had an oddly-shaped head, large lips, short hair, big eyes, and not much of a figure, but she was always on, sexually. I always felt that, no matter what the subject under discussion, that the real subject was whether I found her attractive and what kind of a lover I was. Which made me extremely uncomfortable. I was always on the verge of blushing in her presence — I, her manager! In memory, I once in a while called her "M-j", but only when it was clear she was in the mood to allow such trifling with her name.

One day, in the course of discussing a piece of text in a manual, Melva casually referred to "parallel structure". I thought, "These people are way ahead of me!" She used the term with complete confidence, as though this is something you're supposed to know and it hardly should be necessary even to mention it.

Both Mari-jo and Melva had good, liberal arts, undergraduate educations. When I first took over the department, they were gushing over Faulkner and Pound, who were held in highest

esteem in academic circles at the time. Both women were in awe of Pound's cantos, but never quoted a line; it was enough that Pound had been a victim of the Establishment and had written poetry that was impossible to understand and that the professors admired it. Being women who had gone to college, they also knew French, or at least a few French words. I remember once, as I entered their office, Mari-jo was saying , concerning something on her desk, *Qu'est-ce que c'est?* and I thought, "Christ!, she knows French and I don't, what chance have I got to manage her?"

I told Mari-jo of my literary aspirations, and mentioned that a story of mine had been published in the Winter 1964 issue of *Southwest Review.* She later said that the story had earned an Honorable Mention in O. Henry Prize Stories. I never bothered to check, not wanting to be disappointed if she was wrong. But in my sixties, when I went through the Honorable Mentions for the 1960s, I found out she had indeed been wrong. I have no idea what made her say it.

Over the months, she told me about her family, I suppose feeling that she was among her own kind after I had dropped a few remarks about my mother. She had been born into a wealthy Cleveland family which nowadays we would describe as "strongly dysfunctional". She said that in order to scare one of her brothers into obedience, her mother had once hired someone to run him down in a car, but not kill or permanently injure him. Another of her brothers, John, lived in San Franciso, where he worked for Bofors, a printer. Eventually, through Mari-jo's unrelenting persuasion, we began having some of our manuals printed by his company. John was in his late twenties. He had been partially crippled as a paratrooper although he was able to walk unaided. He had a lifetime government disability, and so was free to venture into whatever business caught his interest. He was always friendly, and always delivered the printing jobs on time[1], but he had the manner of someone who has been relieved of life's responsibilities. Mari-jo also had a sister, Chris, who lived on the Peninsula and worked in some sort of publications or advertising or public relations company, and whom I eventually used as a solution to the insoluble problem I had with Mari-jo, namely, that of having a relationship with her (no one then used the term "relationship") without having a relationship with her. I somehow felt that if I went out with her sister, that would take care of the problem. So I did. Her sister was, in fact, much more attractive than Mari-jo. She had short, black hair, and sexy legs and a sexy, kind of casually trampy walk, even though her legs were a little too heavy. She wore a perfume — too much of it, I thought — which, to this day, whenever I come across it, immediately makes me think of her. On dates she wore eye liner. The trouble was that I knew beyond a shadow of a doubt that I would be impotent with her, not the least reason being that I would keep remembering that I shouldn't really be doing that with Chris because Mari-jo wanted me to do it with her. On the other hand, I knew equally well that I would be impotent with Mari-jo because managers weren't supposed to have sex with their employees and therefore the only real solution to the problem was to do it with Chris, which would be impossible because...etc.

Daily Life in the Company

Around mid-morning and mid-afternoon we had a coffee break. Everyone went down to what we called the "cafeteria" but which was simply a place with tables and chairs and vending

1. It was either he or Jim Tozer who told me that they occasionally had our manuals collated by a firm in San Mateo that hired the handicapped for this work. As far as we could tell, the work was always done flawlessly. Apparently the firm worked with the city or county in helping the handicapped to learn new skills so they could advance to more interesting jobs.

machines. You pressed the buttons representing your preference: Black, With Cream, With Extra Cream, Sugar, then pressed the Brew button. Gurgling sounds came from within, then the paper cup dropped down and the liquid you had chosen poured in from above. Then, or later, I developed the habit of swirling the coffee around in my mouth in order to wash the sugar from the donuts or other morning pastries off my teeth. (I don't recall the source of these eats at Beckman.) Clearly, this was long before Peet's coffee would start the coffee gourmet trend in the Bay Area. The coffee tasted like metal. We drank it only because we were convinced we needed the caffeine stimulant, along with the nicotine in our cigarettes, to get through the demanding work of our jobs. No one was a coffee connoisseur in those days.

I was smoking four packs of Pall Malls a day: sometimes I had one going in my ashtray as I lit another one to calm my nerves when someone came into my cubicle. Cigarettes gave me strength to carry out a tough job. Furthermore I was a writer, and all the best writers smoked them. ("Winstons taste good like a...cigarette should." "Kools: not a cough in a carload." "Lucky Strike. It's the leaf!")

My style of management can best be described as Management by Cajoling. The Code prescribed that I never get angry, never shout at an employee much less a fellow manager, that I be able to take any rebuff, any joke leveled at me, that I always appear friendly, but at the same time always maintain my objectivity. I imagined myself as bringing the values of the hippy generation into modern industry: I attempted to be scrupulously fair to my employees, so they would never be able to say anything against me. I was constantly on the verge of blushing whenever I had to deal with them, afraid that a sexual thought would bleed to my face, that they would suddenly know what I was thinking about. So I developed all sorts of dodges, excuses, for leaving a conversation suddenly — looking at my watch and pretending to have to hurry off to a meeting, or suddenly saying, "Oh, God! I forgot something. Be right back." That was probably the best one, since you could always think up the thing you had forgotten before you came back. Or, if you didn't want to go through the trouble, you could always say, when they asked what you had forgotten, "Oh, nothing. Had to make a phone call. Now, where were we?" Which, of course, came across with the desired comic effect, since they would have long since moved onto another subject while you were recovering from the impending blushing. Psychologically I was always bowing, scraping, trying to be nice, trying to make them like me so that they would do what needed to be done. "The uncertain sickly appetite to please."[1] I wanted to win without ever touching any of them.

I was not above invoking superstitious rituals in order to get events to turn out in my favor. For example, when throwing a wadded-up piece of paper into the wastebasket from across the office, I would make a private bargain with myself: "If this goes in, then we'll meet the deadline." "If this goes in, I'll be able to get through the rest of the day without collapsing or blushing." Other employees pretended they were shooting a basket when they tossed a paper ball like this. When it went in they would imitate the announcer and the sounds of the crowd applauding "Two points! and the crowd goes wild! Yayyyyhhhh!"

I was able to lead a meeting attended by the six or eight members of my department, my discomfort working to the benefit of all, since I did whatever I could to get through it as soon as possible. But that was the limit of my public speaking ability. To speak to even a small group of people I didn't know was often simply impossible. I remember one day when the company was visited by some professional group or other, and we managers were told that at a certain time of

1. Shakespeare, Sonnet 147

day the group would stop by our cubicle, at which time we were to give them a five-minute talk about what our department did. (Of course, that meant that all in the department could hear what the manager said.) My time was to be at nine in the morning. I was awake half the night, finally fell asleep in the early morning — and woke up at 9:30. I raced into work, and when I arrived, Muriel, my secretary, told me that the group had already come and gone. I flustered an excuse, "Oh, I thought it was at ten, not at eight!" But I soon developed an appreciation for the fundamental nobility of management as a craft, not the least reason being that it was a craft my father had practiced with success. And, of course, it required full application of the Code: ability to endure suffering without showing it to others, in particular without showing it to one's employees; ability to be fair; ability to lead (because others, who merely thought of pleasure, needed to be led); ability to be a hero.

And this must be said: despite my constant feeling of desperation, fear of blushing, shame over my ignorance of the technical details that we wrote about, despite my overwhelming sense of worthlessness, I felt that management was something I was destined for. I hadn't the slightest interest in being in a position of power over other people. Rather, I felt an inexplicable conviction, *I know how this should be done, I know how to go about accomplishing the goals here.* Even today, in old age, when I hear about the blunderings of politicians in the face of major threats to the country such as Al Qaeda, I always feel calm, always feel I know how to go about finding a solution (not that I have a solution, but that I know how to go about finding one), and I often rehearse speeches to my presidential staff as I go about the day's business. I strongly identified with Lawrence of Arabia when I later read *The Seven Pillars of Wisdom*. And the truth is that the Beckman promotion made me a manager for the *second* time in my life, the first time having been, of course, when I led jazz groups. I leave it to others to figure out why such neurotic fear and timidity as I always had should have been combined with such a feeling of self-confidence about being in charge.

In those days, management was viewed as a new craft to be learned, partially because of the studies that had been done in operations research during and after World War II and through research like Peter Drucker's. I read several of his books during this period. One of his key ideas, and one that managers throughout the company were urged to follow, was "Management-by-Objective", in which a manager sat down with an employee and discussed a project that the manager wanted the employee to do. The manager carefully laid out the goal and, equally important, the deadline. He then asked the employee if they felt up to the task, and if so, if they had any questions or recommendations. The manager might ask for reports at regular intervals, say ever two weeks or so, but beyond that, the details were left to the employee, with the understanding that if they ran into trouble, they could always call on the manager for help.

In my implementation of the approach, I always wound up the session with something like, "So, OK, when I come in to work on Thursday morning, the 15th of August, I will find, on my desk, a copy of the manual, right?" (the manual being the one that the employee had committed to write and oversee the editing and printing of). I felt this would help to keep the employee's efforts focused.

The company clearly felt that training of managers was important. I remember taking a course by Charlie Fischer in the mid-sixties. This skinny old guy, chain-smoker, balding, had put together a two-day seminar on management which he gave in hotels around the country. He had the demeanor of a survivor, of a man who had seen the worst of it, and once in a blue moon the best, and had lived to tell about it. He handed out an oversized hard-cover book which, to my never-ending regret, I since have lost. It had cartoon characters, lots of white space, and con-

tained various rules for good management: One was "Never do today what you can put off till tomorrow", the point being that each day you should determine what really must be done that day, and do it, and that as a result, what you don't really need to do will sink to the bottom of the pile and always be put off until tomorrow. Another maxim was, "Always try to get your boss promoted", the point being that in the process you will probably be earning good raises, and, of course, once he is promoted, you can fill the vacancy. Another lesson was to avoid multilayered organization charts. He pointed out that one of the longest-lived organizations in Western history, namely, the Catholic Church, had only five levels of management: priest, bishop, archbishop, cardinal, Pope. However, we young managers came to the conclusion that this rule might have to be set aside, because it blocked a means of advancement. There were two ways to advance: one was the obvious one, namely, by being promoted. Unfortunately, the higher you got, the fewer the positions there were. Another way, however, was to start building your own empire, one which, of necessity, you were at the top of at the very beginning. I remember a Technical Publications Manager in Beckman's home office in Fullerton, Calif. — everyone called him "Pappy" (his real name was, I think, Paul Dietrich) — who was considered a master at this, and had built himself an empire of some 50 people. The rule for empire building was variously expressed as "Build from within!", or "Build from below!" I had a chance to meet Dietrich when I was sent to Fullerton by the company on some technical publications matter. He had a way of filling in the empty spaces in a conversation with repetitions of a sound something like *dahn*, *dahn*, which was the verbal equivalent of drumming one's fingers on the table, and which, translated, had the general meaning of, "Of course there is more to say on the subject", and, "Of course I didn't mean that what I said applied in all cases, there are always exceptions, *dahn*, *dahn*". Later, I heard that he had remarked to someone that he respected me because when I didn't understand something I would ask questions.

We young managers knew that a good manager runs things in a way that keeps crises at a minimum. A manager who spent a lot of time dealing with crises was called a "fireman", because he was always involved with putting out fires. "You're all a bunch of firemen!" was a cry that was sometimes heard from exasperated managers to their colleagues.

The old assumptions were being questioned and swept away: that a manager must instill fear in his employees, must always be right, that kindness on a manager's part could only be a sign of weakness. All this was changing. I remembered the family legend, conveyed by my mother, that my father had been an outstanding manager, that on the day of his funeral, all the laborers at his project in St. Louis observed several minutes of silence. I have no idea how good he actually was by the standards that were then coming into being. I suspect he was fair but not particularly warm or friendly with his workers.

Yet, as in my father's day, we dressed formally to go to work. Not that we wore suits, as he did, but we certainly wore dress pants, white shirts, tie, sports jacket. I think the wide ties of my Music Days were just starting to go out of style and giving way to the narrow, young executive ties. Sometimes I wore a clip-on bow tie. The only time you wore a bow tie you actually had to tie was for a wedding or funeral or special dinner (the tie was black). On those occasions, it always took me several tries to get the bow right.

Some of the young Turks I worked with were: John Deutschlander, boyish, very smart in a way that reminded me of my later psychiatrist, Dr. Riskin; Hedy Ertman, the class clown, always ready with a joke: ("Did you hear about the two ninety-year-olds who got married? They spent their honeymoon getting out of the car."); a guy whose name I can't remember, Art —, who everyone assumed was queer because of his effeminate manner of speaking, and who therefore

was considered fair game for jokes behind his back, and, of course, for unreserved contempt, as in all the schools we had attended. In fact, he was very capable, very efficient at his job. There was Bill Russo, Marketing Manager, who already in his thirties had gray hair (but curly) and who was an adept at the art of minimizing the time spent with less important people, like me: with a well-practiced, "John, listen, I want to talk to you about that," he would push his sleeve back to look at his watch and head for the door for an implied meeting.

Marketing was located in the large open room that occupied most of the southern part of the second floor of the building. Because I was a manager, I got a private office — for a while; later, not as any kind of punishment, I had a cubicle like everyone else in my department, near Advertising. The non-managers sat at desks in rows in the center of the room.

Manny Gordon

After I became manager of Technical Publications, a man named Manny Gordon was hired to take over the Applications Dept. We were put under him. Mari-jo, who knew about his impending arrival before anyone else in our department, said he was "older" (he had just turned 40, we later learned) and in fact that he had only recently gotten his PhD (in zoology), in other words, that he got it "late in life". Once, in the course of conversation, he mentioned that he had had an article published in *Scientific American*. During the writing of this book, some 35 years after he became my boss, I looked it up in the archives of Berkeley's Main Public Library. (I had no idea, in those early years, of the advantages you could gain by reading the published work of your bosses or professors, and then, of course, making sure they knew you had read it, and that you had liked it.) The article was titled "The Control of Sex" and appeared in the November, 1958, edition of the magazine, pp. 87-94. The summary below the title reads, "If sperm cells from a rabbit are placed in an electric field, they separate into two groups. One group, when it is used to inseminate female rabbits, tends to produce male offspring; the other, female." Manny once remarked how he had had to resign himself to a certain amount of ongoing criticism, especially from women, for killing rabbits, but nothing in the article indicates he killed them.

The short biography on p. 24 of the magazine reads as follows:

"Manuel J. Gordon...works in the Animal Reproduction Laboratory of Michigan State University. An Ohioan, he worked hard at commercial courses in a Cleveland high school until his second year, when, he says, 'I became so bored that I would be AWOL for weeks at a time. As a result, I came very close to being expelled.' After his service as a World War II army draftee, Gordon decided to become a scientist, and asked his high-school principal for grade transcripts. 'I'll never forget,' he says, 'how his pleasant face transformed into an expression of sickened horror and disbelief as he looked at my records. With no attempt to spare his feelings, I matriculated at Ohio State University in June, 1946, and received a B.Sc. in zoology in March, 1949. All of my graduate work was done at the University of California under Curt Stern."

He was below average height, had dark, Gladstone Gander hair, ears that stuck out a little, and the expression of a man who would like, most of all, to tell you this joke he had just heard. He was especially fond of shaggy dog stories: I first heard "Barefoot Boy with Teak" from him. Once in a while, over the holidays, he would have us all come over to his modest tract house on Ross Street, near the Oregon Expressway in Palo Alto. There, he, his wife — a heavy woman, always on the verge of laughter, it seemed — and his daughter (he may have had two, I don't remember) served us drinks (most of them nonalcoholic) and hors d'oeuvres.

Soon after he arrived, Mari-jo and Melva gave him the nickname of "Mammy Grodon", possibly because of his benevolent, parental, manner. I don't know why they reversed the "r" and "o" from the correct spelling of his last name,

The truth is he had very little interest in, or understanding of, what we did, and as a result he left us alone, except to appear once in a while to chat and tell us a joke. But I remember one time that the question had come up — I assume among the writers — Which was better in scientific writing: the active voice or the passive voice? (In the active voice, the author would say, for example, "We kept the resulting mixture at a temperature of 180 degrees for 30 minutes" In the passive voice, the author would say, "The resulting mixture was kept at a temperature of 180 degrees for 30 minutes"). Some scientific journals required the passive voice be used throughout a paper, the belief being that it made what was being reported more "objective", more "scientific". After some discussion, I decided to get Manny's opinion. I said to him, "In the last analysis, which is better?" He smiled and replied, "In the last analysis, all that matters is whether the author is being honest or not."

We writers tried hard to become good at our craft. The two women and I had read Strunk & White's *Elements of Style* in college. We read a book by Robert Gunning on writing clearly (I can't find it in my library). The Wall Street Journal had decided, during World War II, that they were losing, or at least not gaining, readers because of their stilted, jargon-filled articles. They chose Gunning to help their reporters write more clearly and interestingly. Perhaps they had found him through a book on writing that he had written, I don't know. But he had emphasized shorter sentences, minimum jargon, Anglo-Saxon words (ala Hemingway), active voice rather than passive voice, human interest where possible. "Write as you speak" was an often heard rule in those days, but I don't think it was original with him.

From somewhere, perhaps a company instruction sheet, we heard that, in writing letters and business memos (no email at that time, of course) we should always "Whisper I, and shout You!"

Being left alone as a manager was fine with me. It was the first time in my life that anyone had trusted me and I glowed with the honor. He became, without question, the best manager I ever worked for in my thirty-five years in industry. And although he left me alone most of the time, he stood by me when things were bad, as we will see later on (in "Manny's Courage" on page 594); furthermore, he wasn't an engineer, meaning, he was interested in ideas for their intellectual value, not for the dull objects you could make out of them. He was exactly what I needed and should have had in a parent. Throughout my life, when someone has said or implied, "We don't know, we can't be bothered, you'll have to figure it out yourself", I have felt confident, have risen to the challenge, and have done a good job. But being forced to work under the thumb of others, the stupid rules of others, brings out the rebel in me.

Cor Laan

I have known very few real craftsmen in my life. My father, of course, was the first. There were one or two programmers later on, and much later, a PhD in biology who did excellent work in carpentry, plumbing, brick laying and working with concrete. At Beckman, however, there was a man whom I unhesitatingly put equal with these others. His name was Cor Laan, and he was the illustrator in our department. I am not sure if he was there when I took over as manager, or if I hired him, but in any case, I have never personally known a better illustrator, and I mean "illustrator" in the fullest sense of the word: his job involved making drawings — with pen-and-ink and with air brush — not only of machines and machine parts, but of human hands assembling and

using the parts. He drew flawless cutaway views of cylindrical plastic modules used for pH and blood gas analysis (the Modular Cuvette), and, with the skill of Leonardo, he drew hands performing crucial steps in the installation of thin plastic membranes in the Oxygen Macro Electrode. He drew hands installing tiny membranes in the PO_2 Electrode Catheter. He had members of the department, or an engineer or technician, hold the part while he made the initial sketches. He faded back the drawings of the hands so that the electrodes themselves, in stark black and white, were the most prominent to view; he used red to show a part that was the center of interest for a given operation, And he never forgot to include the reflection of light — the shine — on the sides of round plastic or metal or glass parts.

But his masterpiece was almost certainly the drawings he made for the Model E Analytical Ultracentrifuge manual, which took Mari-jo an age to write. I had to exercise every ounce of young-manager skill I could muster to coddle and cajole a very neurotic, very insecure, but talented writer who was determined to do the best job possible. (The project engineer for the Model E was Lee Gropper, son of William Gropper, the famous painter.)

In the Model E, and in the other less-powerful centrifuges the company manufactured, a liquid containing a sample to be analyzed was inserted in a transparent tube placed in a rotor that was then spun at up to 50,000 rpm (the typical Japanese car engine rotates at less than 3,000 rpm)[1]. (The rotor had roughly the same shape and size as a partially flattened football with rounded ends.) The centrifugal force caused the molecules of the sample to be separated, with the heavier molecules going toward the bottom of the tube, the less heavy in the middle, and the lightest nearest the top of the tube — like the drink known as a pousse-café, in which the bartender pours liqueurs of successively lighter specific gravities into a glass, producing a series of varicolored layers. By shining a light through the sample during the process of centrifugation, and observing the rate at which the various molecules separated, and the distances between the layers for each type of molecule, various properties of the molecules could be determined, including, to quote Mari-jo's text, "sedimentation coefficients, molecular weights, diffusion coefficients, particle size and shape and partial specific volumes".

This manual, like all our manuals, was written in the unquestioned belief that in order to use a piece of equipment, you had to know how it worked. The manual included Russ Illig's photos of rotors and Cor's black-and-white exploded views of various assemblies, but the peak of his art was reached in the section, "Optical System". Here was a a sequence of twelve air-brush drawings in color, showing simplified views of the passage of light through the optical system — first through a collimating lens to make the light rays be parallel, then through the sample in the rotor, then through a condensing lens to focus the light on the schlieren analyzer slit, then through two more lenses, and finally onto the screen, where the image of the sample showing the bands of molecules was displayed and could be photographed. The lenses (with the shine on each clearly indicated) were immersed in the white light beam; the sample-holder and the schlieren slit hardware were in black, and then, in front of the screen, the various beams in the light representing different levels in the sample, were in color: red, yellow, green, blue, with the screen a lime-lolly-

1. The centrifugal forces at that speed were sufficient to cause the rotor itself to break apart — in fact to explode, instantaneously transforming a piece of scientific apparatus into a good approximation of a hand grenade. So the rotor was spun inside an armor-plated cylinder in the Model E. In addition, rotors were routinely tested in an armor-plated little shack at the side of the company's main building. Here, they were spun at progressively higher speeds beyond 50,000 rpm to be sure that, at least most of the time, they were strong enough to withstand the forces at 50,000 rpm.

pop green. Each drawing was on a blue-gray background.

The manual cost a fortune in labor and no small amount in printing costs because of the color plates, but we all knew we were producing a work of art, and I am sure the company felt that its flagship product deserved nothing less.

Cor was a handsome man, with swept-back blond hair. He looked like the Dutchman he was. To this day I can hear, in my mind's ear, his Dutch accent. I used to puzzle over his name, which he seemed to spelled "Cornelis", whereas I wanted it to be spelled "Cornelius". He had a beautiful wife, Sylvia; they lived in Redwood City, in the mid-Peninsula. He reminded me of my father, and other European immigrants I had known, in that he clearly felt that, in exchange for a chance to come to this country and earn a good living at a respected company, you gave your very best, day-in, day-out. It is true that sometimes I, and the writers, would become impatient at the time he took to complete some drawings, but I knew that this was simply the price you paid for having a man of his talent and dedication on your staff. I always tried to bring up the subject of deadlines with as much reluctance, as much abashedness, as possible.

His hobby was building sailboats, or, rather, *a* sailboat. I never saw it, but members of the department who did, said it was the same quality as his illustrations. In fact, they said, it looked like a piece of mahogany furniture, which prompted some of the members to ask him, while admiring its beauty, if it really would float. He said he would be glad to put it in the water so they could see for themselves. So one Saturday morning they met him at a launching ramp on the shore of the Bay in Redwood City. He slid the boat off his trailer and down into the water. It floated perfectly. Not a drop leaked inside. He let them climb around on it, admire it, then he loaded it back on this trailer and took it home. The members said he clearly regarded the actual sailing of a sailboat to be of minor importance compared to the building of it, the making of something beautiful.

Angus MacDonald

We were also blessed in that we had one of the best graphic designers in the area handling the production of our more important manuals, namely, Angus MacDonald, who had an office in Los Altos. He was a tall, thin, older man with a booming voice who reminded me a lot of Uncle Gus from my childhood. He also had a warm sense of humor, and seemed to enjoy sitting and chatting for a while when we called him to pick up a job. On his staff was a young woman whose name I have long ago forgotten, but who had a quiet warmth and competence and eagerness to see that our manuals were exactly what we wanted them to be. She was Jewish, I think, had curly hair, and, we learned, was on the Olympic fencing team! She seemed a little reluctant to talk about it, but I remember always being impressed by this odd combination of talent in the graphic arts and in wielding a sword (or, rather, a foil) at the lightning speed of modern fencing competition.

The Tozers

And finally, we were blessed with having several outstanding printers. The one we used most was Dee Tozer Advertising, a firm just off Rte. 101 in Redwood City, which was run by the best businesswoman I have ever known, namely, Dee Tozer. She had started in the fifties typing mailing labels at the kitchen table of her tract house in Menlo Park. She did such a good job that her customers began asking her if she would handle the entire mailing for them — typing the labels, sticking them onto envelopes, putting the company's advertising flyer into the envelopes, sealing them, delivering them to the Post Office. She excelled at this, too, and so her customers wondered if she couldn't handle some of their printing for them. And so she bought a small offset

press — for all I know, it was originally in her garage — and thus got into the printing business.

Dee's husband, Jim, was an engineer at Lockheed, but the demands, and success, of his wife's business, eventually allowed him to leave that job. Whereas Dee was dynamic, full of energy, charming everyone she met, her husband, with his crew-cut dark hair, was quiet, unhurried, always pleasant, and willing to let his wife be the boss. He acted as salesman, which, in the printing business of the time, meant that he picked up the camera-ready copy, got the instructions for the number of copies and the collating and punching and binding to be done, brought the job to the plant in Redwood City, and then, when the job was done, delivered the printed copies. Within ten years the couple had become mult-millionaires and were able to buy a house in the wealthy community of Hillsborough, on the Peninsula. Dee invited us out to see the house at least once. It was a beautiful structure set down below the road, with lawn and fields and woods in back. She said that she had searched high and low for an appropriate front door, finally sent to Spain for one, and an impressive piece of work it was, looking like something from a Spanish castle or monastery.

She was an attractive woman with deep-set flashing eyes and a way of blinking that always made it seem, at least to me, as though she had just taken off her glasses, though she didn't wear glasses. She had a way of climbing right into your soul, making you feel as though you were the most important customer she had. She several times invited me to lunch at one of the better restaurants in Redwood City or Menlo Park. But, as I found out years later, while I was working at another company, you didn't want to cross her. When she found out that we had used another printer (once), her wrath was boundless. "Hell hath no fury like a woman scorned." I hear her voice on the phone, barely under control, her sarcasm. For some reason I can see her eyes, bright, wide open, lashes going up and down, as, with a close-mouthed smile she makes clear that as far as she is concerned, I have betrayed a friendship of years. I am not sure, but I think we eventually went back to using her company again.

She had an elderly, sickly mother the care of whom, I gathered, would have been a full-time job in itself for a normal person. But she managed it in addition to running the business and raising kids.

One reason for her success was her ability to find and keep hard-working loyal and most of all uncomplaining employees. Chief among these was a secretary of many years, Edwina, a pleasant, quiet woman with a Southern accent who seemed to want nothing more in the world than to serve Dee, and whom everyone felt at ease with.

Dee and Jim had several children, though I don't think I ever met any of them. I remember her remarking that she and her husband never both flew on the same plane at the same time, so that, in case of a crash, the kids would not be left orphans.

They built their company into the seventh-largest printing business of its kind in the country. In the early 2000s I went to visit them, as will be described later.

Muriel Short

My secretary was Muriel Short, who, like her husband, Glenn, was Canadian. She was well-meaning, not terribly bright or efficient, but I was fond of her. Her husband was a beer alcoholic and unable to hold a job, so the burden of supporting the family was on her shoulders most of the time. They had several kids.

She also did all the repro typing for the department, that is, she typed the final, camera-ready pages for all the manuals. The printer then photographed each page, transferred the image to an aluminum sheet that was then attached to a roller that passed over an ink pad. The ink stuck only

to the image (the words and illustrations) and in this way the image was printed on paper sheets that were then cut and bound into copies of the manual. The process was called "off-set" printing.

I felt that, as a boss, I should dictate all memos and letters because it was more efficient than my doing the writing in longhand and handing the letter to her. Also, I felt that it would hurt her feelings if I simply gave her handwritten text to copy. But I was very uncomfortable at dictating (usually I wrote down notes of what I wanted to say, sometimes actually wrote down the finished version and simply read it to her). Since she was slow as molasses at taking shorthand, it took far longer to get a memo or letter typed than if I had simply done it myself. Recollections of my efforts added to the hilarity of the sketches of Mr. Tudball (Tim Conway) attempting to give dictation to his inept secretary Mrs. Wiggins (Carol Burnett) on The Carol Burnett Show

Muriel's family finances had reached a low point when she came to me one day and said they didn't have enough money to buy food. I lent her $200 and told her to pay me back when she could. I never received a penny of it back.

Judy Baker

Eventually Muriel left — I no longer remember why. My next secretary was Judy Baker, a cute, flirtatious, sexy young woman (in memory there is something pink and candy-like about her) who made it clear that she wouldn't mind our getting together after work. I was sorely tempted, despite the inevitable anguish over the Problem (my impotence, which will be discussed later), but then I thought, and wisely, that it wouldn't be good for my image as a manager if word got around among the others that I was sleeping with my secretary, so I never took her up on her implied offer, and, as a result, I sensed, became even more desirable in her eyes.

Dick Levine

Despite my boundless anxiety during the interviewing process — I was always trying to see myself as I imagined the other person saw me: what right did I have to sit there looking out? I should be looking in; the other person existed, I didn't — with two exceptions I made good choices in the people I hired. One of the best was Dick Levine, a tall, pale guy with glasses who had an air of quiet competence, and who always gave me the impression that he appreciated working in the department. He was an outstanding writer, had the easy-going sense of humor that was practically a requisite to work in our field, and was always the one I went to first when I suddenly found myself with a rush job on my hands, His wife Karmen, also tall, had a habit at parties of drinking too much and then making it clear to me how much she liked me. I fielded these approaches as best I could, determined above all to make sure my star writer didn't have the slightest reason to believe that the boss was having an affair, or even wanted to have an affair, with his wife. His annoyance and impatience with her behavior was obvious; he tried to intervene, get her to go visit someone else at the party, and then leave early.

When I left Beckman, I recommended him as my replacement, a recommendation the company went along with. A year or two later, however, he decided he had had enough of California, and in fact, of the U.S. In a phone conversation, he complained about the public schools (he and his wife had two or three kids, I think) and, most of all, about the crime. So the family picked up lock, stock, and barrel and moved to Australia, where he became the editor of an electronics magazine.

Bob Byers

Bob Byers was a man I sensed to be one of those timid souls who believe the only way to survive in this threatening world was to be deferential, especially to anyone in authority. He often was nodding his head in agreement with me even before I had finished saying what I hoped he would agree to. He was somewhat overweight, and I think was aware of his physical awkwardness. A serious, meticulous worker at all times, he would often retype entire pages to correct minor errors — the reader must remember that this was long before the days of computer word-processors — even though he could have pencilled in the corrections before giving the page to Muriel for final repro typing. Nothing I said could deter him from this commitment to perfection. As a result he was not as productive as the other writers, but I felt that I would just have to live with it, since he wasn't so inefficient as to justify being fired, and furthermore I was convinced that if I did fire him, it might kill him.

He had an invalid mother. I don't know if he was married, but I do know that he traveled every week to Monterey, which was several hours' drive, to visit her in her hospital or convalescent home. When he talked about her, it was always abundantly clear that she came first in his life.

Jeanette Bellis

Jeanette was one of those employees for whom at least 50% of the value of going to work each day was that it afforded an eight-hour opportunity to socialize. She was an attractive blonde probably in her late thirties, slim, with neck-length hair, a good sense of humor and an ability to get along with everyone. Her husband Marv I think was a technical publications manager in another company. They once invited our department out to their suburban house in Sunnyvale for a party. It was clear that Marv, neatly dressed, with a bow tie and a full head of black hair neatly parted in the middle, was especially proud of the pool table in the extension to the house that he had had built. I sensed he was Jewish. He, like his wife, was a warm, jovial type, the two of them having developed a wry, bemused attitude toward the profession they were earning a good living in.

Jeanette was a competent writer, but I remember her most as living proof of a statement made by the leader of a smoking-cessation program I had joined: "You haven't given up a habit as long as you think about it." She would come to work in the morning announcing that this was it, she had already gone two days without a cigarette, she was going to quit permanently this time. A week or so later she would reveal that she had had the habit beat, but then she and Marv had had some friends over and, before she knew it, she had lit a cigarette. But she had had only a few puffs. She would have to watch out for that kind of thing in the future. She had quit again the next morning. During the days when she wasn't smoking, she would carry on at length about what a nasty habit smoking was, how the cigarette companies were getting rich, and yet how it wasn't all that difficult to quit — you just had to make up your mind. On and on she went. Within a few days, when someone asked her how she was doing, she would say that she had been depressed about something and had lit up again. But she wasn't going to continue. Just long enough to get through this rough spot. (I realized that if I really wanted to help her, the best thing I could do was *never* ask her how she was doing, in fact never mention cigarettes or tobacco at all, and I tried to stick to this rule.)

"Quitting smoking is easy: I've done it a thousand times." — Mark Twain

Peachie Nickerson

Among the colorful characters at Spinco was the lobby receptionist, Peachie Nickerson. She was the kind of old dame that everyone loves. She may well have been in her sixties then, perhaps older. She was like a small-town phone operator, knew everyone by name, although she called most of us "dear" in her cheery, old-lady voice, knew where everyone was at any given time and when they would be back if they were away. You could leave messages for other people with her. She sat behind her switchboard in the little front lobby, pushing in plugs, flipping them out. Sometimes, on hot days, if you looked over the swinging door at the side of her desk area, you could see she was sitting with her legs crossed and her stockings rolled down to her skinny knees.

Hans Toepfer

Hans Toepfer worked in the Advertising Dept., under the Advertising Manager, Mac Lawrence[1], but for reasons he never made clear, he decided he wanted to become a technical writer. He was German, and rumor had it he had been a member of the Hitler Youth, though, considering his age — he couldn't have been forty then — that seemed unlikely or, rather it seemed unlikely he had done any real harm to anyone if he had been a member, since he would have been at most in his mid teens during the height of World War II. He was short, I suppose around 5'6" or so, and very serious and precise in everything he did or said. To this day, I have never personally known a foreigner who had mastered English as well as he had. (When we were discussing German once, he referred to a phrase as "Late Late Show German" (in those days, late-night TV movies were often about World War II).)

He was married to a lovely blonde Dutch woman named Rene (I think they pronounced her name "*Ray*nee"), and I sometimes wondered how that went over with the burghers in her home town in the old country after the war. It was said they had a beautiful house in Los Altos, with an immaculate lawn: even a few leaves on it were cause for consternation among them.

He was in many ways an ideal employee, always delivering his manuals on time, always very thorough. I only became a little nervous when I saw how it angered him when one of the engineers was not conscientious about the information he provided for the manual.

I heard that he had left Beckman for Hewlett-Packard (HP), and once, many years later in a lobby in one of the Santa Clara divisions of HP, I saw him. He now had white hair, but still the same determined, no-nonsense manner. I made sure he didn't see me because I sensed we both would have been embarrassed for the other to see how each had aged.

I Make a Fool of Myself

Mari-jo decided it would be nice if the whole department came over to dinner at her apartment in Palo Alto. She and her husband Ray[2] had a nice, ground-floor place on a quiet street. I remember the trees, and the cool, green, long grass surrounding it. I was extremely nervous about the event, because I knew that, on the one hand, I had to appear to be a regular guy, no better than any of the others even though I was the boss, and at the same time I needed to show that, even in these

1. Mac was one of those rare men who, though bald, manage to retain a certain degree of handsomeness. He was also a little short, but that didn't detract from his looks either. He was articulate, and had that always-ready enthusiasm that to me seemed characteristic of all advertising and marketing managers.
2. By this time, I knew he was gay, although I can't remember who told me, or how many other members of the department knew it. He didn't interact much with the rest of us.

informal circumstances, I should not be *too* regular a guy, I should still make it clear that I was the boss, and expected to receive a certain amount of respect.

When I arrived, Mari-jo showed me the pitcher of martinis she had just made, and I immediately knew that they would be the means by which I could get through the evening. So I poured a nice, cold glass, downed it, joined in the conversation, went back and poured another, downed it, and on it went. Meanwhile, the women were busy in the kitchen, stirring, talking, cooking. After a while, I felt the need for a little fresh air, so I slid one of the glass doors back and stepped out on the cool yard. I stood there, listening to my anxieties crashing around in my skull. "Have I said the right thing so far? Do they still like me? Am I being too soft? Am I being too remote? Oh, God, when will she serve dinner?" And as I stood there, I suddenly became aware that the ground — the nice, long-haired grass — seemed to be rising toward me. It was quite a pleasant sensation, so I thought I would enjoy it while it lasted. Then I smelled the cool grass up close, the blades and the damp earth right next to my nostrils. The next thing I knew, I was on the couch in the living room. They were standing around me with amused expressions on their faces. The boss had drunk so many martinis that he had collapsed on the lawn. For the rest of the evening, I sat, with red face, laughing weakly at the jokes, not saying much, and knowing that my stature in the department would never again be the same.

Russ Illig

Apart from Cor, the best craftsman we worked with was without question our photographer, Russ Illig, who took the pictures that were always part of every manual. One of these would usually appear on the cover of the manual; others appeared throughout the chapters. Sometimes Advertising would use some of the photos.

Russell had a studio on California Ave., a quarter of a mile from the plant. Sometimes we would bring the equipment over there to be photographed, sometimes he would come to the plant. He had what to us seemed an ancient camera, with a cloth hood over the back that he pulled over his head so that he could look through the viewing screen in the back. Sometimes he would take a time exposure during which he "painted with light" the piece of equipment, meaning that he moved a bright lamp around at various angles so that the shadows would be softened. As with Cor, we sometimes became impatient with his slow speed. We wanted him to simply put the piece of equipment against a white cardboard background and press the shutter. Why all this business with meticulous placing of lights on tall metal stands, this constant checking and rechecking his exposure meter, this ducking inside the hood again and again to check the focus and the position of the equipment. But the photos he delivered were flawless, in fact, classical in their austere perfection.

He was a skier, I remember, and I always liked the fact that he went skiing with his son, and talked about it with obvious pleasure..

Reading on the Job

I always had at least one book with me wherever I went, including on the job. I hated to let idle time go by without reading, Since I was a manager, I had a small office (for a while: later I had to be satisfied with a cubicle, just like all the other white-collar workers). We were allowed to have the office furniture arranged as we wished, and so I had the desk placed so that it faced toward the door. I kept an open book in the top right-hand drawer; by pulling the drawer open a little way, I could read while at the same time being able to see anyone approaching who wanted

to talk to me. In that case, I would simply slide the drawer closed, deal with the matter at hand, and then open the drawer again when they had gone. I am sure I read a fair amount of Peter Drucker on management that way. The book was not forbidden, of course, but I suspected that higher management preferred not to see lower management sitting at their desks and simply reading books.

A Visit to an Operating Room

One of the division's products was a CO_2 (carbon dioxide) Analyzer, which was used to measure the amount of the gas in the breath of a patient during an operation. I suppose as a reward for the good work my department was doing, I was invited to go to Chicago to witness the equipment in actual use. Tests on dogs had already been conducted, one with catastrophic results for the dog, since a spark ignited the anesthesia and caused the animal's lungs to explode. I was told that this wouldn't happen in a human patient, because additional safety precautions were taken.

It was the middle of winter, and all I remember of Chicago was the cold streets and the infernal smell of the stockyards, which reminded me of the smell of soaking wet wool. By the end of the first day, I thoroughly detested the city. The hotel room was clean and small, and, since it had a TV (black-and-white), it afforded me my first acquaintance with Abba Eban, who at the time may have been Israel's Minister of Education. He was appearing in a panel discussion, and I was utterly amazed at the man's extraordinary articulateness and erudition. I had never heard anyone speak that way. It was like suddenly coming upon a person from civilization. I watched the entire show on the edge of my chair.

We got to see two operations, both I think at a hospital connected to the University of Chicago. In the first, we were asked to put on translucent plastic slippers with a metal tape running down the back and underneath the sole — a grounding device to prevent sparks. We also had to wear long hospital gowns. Then we were conducted into the operating room. On our left, as we entered, was an overweight man lying on an operating table. His front was bare from waist to neck, an incision had been made from his navel to the base of his neck, and the thick flesh pulled apart. There was no bleeding: both sides of the incision seemingly having been sprayed with cellophane. But there were his stomach and his intestines, open to view, and his heart. We were told he was having a piece of plastic tube inserted to replace a damaged artery. The place had the atmosphere of an office. The surgeons were talking among themselves, conversing as though to kill time while they got through this procedure they had to do. They might well have been talking about their vacations or playing golf (though it was the middle of winter, so that was not likely) or telling jokes. A nurse came in with a tray-full of scalpels, accidentally dropped it with a clatter, swore, and then, laughing, knelt and picked up the pieces.

The next operation was conducted, so it seems in memory, in a school gymnasium. We were guided to a seat in what seemed like bleachers. Far across a polished wood floor, surgeons surrounded a young man lying on an operating table. One surgeon stood with us next to the bleachers and explained what was going on. A bone in the heel of the patient had a vertical split, and so they were going to screw it together. Sure enough, one of the surgeons seemed to be slowly, carefully, turning a hand drill like the ones my father always had in the basement, and that I had used regularly (not a brace and bit, but one that is turned by turning a handle). Again the casual atmosphere of an office. Then, after some preparation, it seemed as though, yes indeed, a surgeon had placed a screw in the back of the heel bone and was slowly screwing it in with an ordinary screw driver.

Seeing Gene Krupa in Person

On a second business trip, this one to Boston, I somehow stumbled on a little hole-in-the-wall bar where a small group, with none other than Gene Krupa[1] on drums, was playing. It was the first and only time I ever saw him in person. The bar was so small that the musicians stood in two tiers, Krupa crushed beneath the ceiling, unable to sit erect. I heard members of the audience commenting on how he was way past his prime, how pathetic it was that he had to play gigs like this to make a living. But that boyish enthusiasm was still there, the half mad smile expressing his delight at just being allowed to play music like this, his head thrust forward under the low ceiling, swiveling from side to side, the drums way too loud for the rest of the band, not to mention for the size of the place.

Sam Connery

Another of Mac's employees was Sam Connery, a guy with a wry expression who clearly didn't take seriously the earnestness of business or of advertising. Eventually, he left to work for *Sunset Magazine*, where he became an editor. I saw his name on the magazine's masthead for several years. When I visited him once at his house in south Palo Alto, I realized immediately that he was, in at least one respect, an ideal Sunset employee, because he clearly was never without a home project. His house was apparently in a perpetual state of expansion. Plastic tarps hung from ceiling to floor in the back, behind which were planks and scaffolding and tools and barrels of nails. His weekends were spent hammering and sawing and nailing, in accordance with what I imagined was the unspoken motto of the Sunset management: "There is no home or yard that does not need improvement, and there is no reason why the homeowner should not do the work himself."

Gordon Rothwell

Still another of Mac Lawrence's staffers was a guy named Gordon Rothwell, and he was the most nervous, anxiety-ridden man I ever met. He always seemed unsure about what he was supposed to be doing, or if what he was doing was what the boss wanted. He was a man perpetually at the end of his rope. He seemed to welcome any opportunity to talk, the one thing he preferred talking about above all else being the movies. But "talk about" is much too informal a term, because what he really did was give you a review of the film under discussion, using all the standard language of movie reviews. You would say, for example, "Hey, Gordon, what did you think of — ?" and you would name a recent film. He would reply, " — 's performance" (naming an actor) "in the lead role shows singular improvement over his lackluster performance in such roles as — in —, and — in —" (he naming the roles and the films). "Under — 's direction" (naming the director) "we gain an insight into the troubled lives of today's young professionals as they grapple with the demands of professional advancement, and the temptations of love. It is not too much to say that this MGM film is Academy Award material..." If you asked him what he thought of a new actresss, he would reply with something like, " — shows promise in young housewife roles..." If you criticized a director, he might respond with words like "limited scope and range", "showing the unfortunate influence of —" When we talked about office politics, the work at hand, he spoke normally. Only when the subject was film did he automatically change to

1. He had become famous years before as the drummer for the Benny Goodman Trio, Quartet, and other groups, including the Benny Goodman Orchestra. He was the drummer at the Orchesra's famous 1938 Carnegie Hall concert.

his movie-review language. The only explanation I could come up with was that he was from Southern California.

His home life was apparently an ongoing torment. Marcella (to be introduced later) and I visited him and his wife only once, and all I can remember is two or three screaming kids amid a disarray of furniture and toys that husband and wife had clearly resigned themselves to, with constant apologies to guests. Marcella said his wife was even more neurotic than he was.

A Man Dedicated to His Job

I don't remember many of the managers of other departments, but one I do remember was the head of Quality Control. Serious, I might even say humorless, he nevertheless ran a department that everyone respected for its no-nonsense attitude toward product faults. He was known to be excellent at running meetings, always having an agenda in advance with time limits for each topic to be considered. He missed only one day of work that I or anyone else knew of, and that was on the day his wife died. The next day, and thereafter, he was back on the job. Employees shook their heads, commented among themselves that he at least should have taken a couple of additional days off to honor the memory of his wife.

We Win Prizes

I think I was a good manager and that I ran a good department. I was proud of the quality of manuals we were producing. Each year at the Society of Technical Writers and Publishers (STWP) annual competition, we won several first prizes. I still have copies of most of those manuals.

And although I'm sure I was known as a "soft" manager, we had a reputation for always meeting deadlines. I had the self-discipline to draw the line when I felt things were becoming too lax, as when members of the department started drifting in to work as late as 9:30 in the morning (I had allowed them to come in between 8 and 9 — a personal policy, since there was no such thing as a "flex time" policy in companies in those days). So, at a meeting, I said I felt things were getting out of hand, and that from then on, I expected everyone to be at their desks by 9. Later, Jeanette complimented me for having had the self-discipline to do that, without my being forced to by management.

There is no question but that my years as a manager at Beckman were the best of my working life. Thereafter, with the exception of a Help project I led in the late seventies, it was all downhill and outright failure.

"Where Were You When Kennedy Was Shot?"

It has been said many times, but I will say it again: there are a few events which make such a strong impression upon us that we remember exactly what we were doing when they occurred. The assassination of President Kennedy is certainly one of these.

I was walking along a second-floor corridor at Beckman, some papers under my arm, my mind preoccupied with some problem or other pertaining to the department. I can see it quite clearly to this day. It was a corridor that emerged from a hallway, perhaps near the head of stairs, I am not sure. The walls were gray. It was a part of the building I didn't often go to. There were the five-foot flimsy walls of the cubicles on either side, the bustle of daily life in a company. Then I heard a voice: "Kennedy's been shot!" It was clear that everyone had stopped work, the news could be heard being repeated throughout the cubicles, along with cries of "Oh, no!" I

asked someone over a cubicle wall, "Is he dead?" They didn't know. Eventually, I suppose, someone found a radio, turned it on. I don't recall anything more about the day, only those moments in the corridor between the cubicles.

Night Courses

It wasn't enough to be a good manager during the day, and to sit in my room each evening forcing myself (for an hour) to be a writer, all the while reading whatever books seemed worthwhile. So I looked around for evening courses. In the fall of 1963 I took Prof. Gardner's course in existentialism at San Francisco State College. I remember only one thing about the course, namely, my struggles to write an assigned essay about existentialism when I still had no clear idea of what the term meant. The essay did not get saved, but I remember that it was in effect an essay about the writing of an essay when nothing was certain. Every sentence was immediately followed by other sentences pointing out how inadequate the first sentence was. Then these sentences in turn were doubted. I wondered if, in fact, I was being an existentialist during the writing. It certainly seemed to me, in my natural state of depression, that if we were honest, the only kind of essay that *could* be written was one in which every sentence was doubted in the next sentences. I got a B in the course.

In spring of 1964, I took Prof. White's course, also at SFSC, on playwriting, hoping that my natural affinity for literature in which there was talking — letters, plays, philosophical dialogues[1] — would reveal to me that I was meant to be a playwright. I remember absolutely nothing about the course, except that White was apparently one of those has-been European intellectuals (probably Austrian or German) who in middle age wind up teaching at second and third-rate American colleges. I got an Incomplete.

Around this time, I also took a course in Musicology. I have no record card from it, which suggests that I never bothered completing it, and no wonder, since, but for the title, you would never know it had anything to do with sound, so dry and technical were the lectures. The professor was a thin, humorless young guy in dark-rimmed glasses who clearly was a recent PhD. The textbook, which I still have, was Gustave Reese's *Music in the Middle Ages, With an Introduction on the Music of Ancient Times*. We had to memorize endless details about the modes (ancient versions of scales).

I remember a party that was given in the basement of one of the State College buildings. I have long since forgotten the occasion, but the attendees seemed to be primarily art students already enthusiastically embarked on the bohemian life. There was one guy, rather older than the others, fat, balding, with thick glasses and a lisp, who seemed intent on buttonholing as many people as possible and expounding on the "miff making need of man" (in other words, myth making).

Going Back To Visit The Band

During the early sixties, I went back to New York at least once, R — having forgiven me for leaving that summer. He said he and Janet were going to have a dinner at their apartment in my honor. Tom Artin, who had been the trombonist in our band, was there, with his new girlfriend, a

1. I often tried to write down my pessimistic ideas in this form, but it was clear from the start what my views were, so the pretense of trying to carry on an objective discussion reason was nothing but a shameful exercise in hypocrisy.

sexy Swede who at one point took out a piece of carefully folded paper. She opened it, and it became a male figure which, when she moved a tab on the back, had a cock that appeared to move up and down, or in and out, or whatever. I was extremely embarrassed, but was absolutely powerless to stop my blushing, especially as I wanted to impress Martin's girlfriend with my suavity and sense of humor as former bandleader.

Around this time, Vince Guaraldi's record "Cast Your Fate to the Wind" was a much-talked-about hit, even among jazz musicians, although it was a rather tame jazz piece. Needless to say, they couldn't resist the temptation to do something with the title, which soon became "Cast Your Fat to the Wind".

Artin had earned a PhD in Medieval Literature, and then taught, although R— said he had no real interest in the academic life. He continued to play Dixieland, and made at least one record, which he sent me a copy of, and which I still have: *Ed Ashley's Jazz Band* (Audio Precision, APS-1005). He is listed as "Tommy Artin". The liner notes state "Trombonist Tommy Artin is a college professior of English literature. He lives in Moylan, Pennsylvania, and is currently writing a book on Medieval French literature." The other musicians are Tommy Simms, trumpet (his solos are way too busy), Ray Whittam, clarinet, Laddie Springs, piano, DeWit Kay, bass, Ed Ashley, drums, and Jean Kaye, vocalist. On the back of the album is his ball-point penned dedication, "for Jfranklin, my first scholarly publication."

Another Musician from the Past

One day as I was walking along El Camino Real under the ancient trees near the wealthy community of Atherton, on the Peninsula, someone passed me and said hello. It was Bruce Wolfe, a valve trombonist we had used on several jobs. He was a shy, balding man, with the same family-oriented character as Bob Newman, the Woody Herman sax player who had played with our band on several occasions. Like Newman, he had played with a number of famous groups. We had a pleasant chat. I no longer remember if he said he was still playing. What I do remember is that he said he was raising his son to understand and appreciate jazz, and that one day when he asked him who was playing the trumpet solo on a record they were listening to, the boy piped up with, "Miles Dago!"

A Good Record Store

A new record could get me through another suicidal day. In a small shopping center — called, I think, "Embarcadero Village" — at the corner of Embarcadero Rd. and El Camino Real in Palo Alto was the best record store I have ever come across. Its name was "Town and Country Music" and its excellence was due largely to the extraaordinary musical knowledge of one of the clerks. He was a large man with dark blond hair whose manner of speaking reminded me of John Porter in our band, The Saints, in White Plains High. Whenever I came into the store, he always seemed to be busy with paperwork as he stood behind the counter — accounts of some sort, I assumed. I would walk up and when he looked up quickly from his work, I would say,

"Looking for a record. Bach. It begins [I singing the melody to the syllables] *dahdle-lahdle-lah dit daht dah, daht daht duht deee, dahdle-lah daht duht duht deee, dahdle-lah-daht dah, dah, dahdle-lahdle-lahdle-lahdle* ..."

He would look up at the far corner of the ceiling, obviously trying to suppress a smile at the sheer gaucheness, not to mention the extraordinary ineptitude and out-of tune-ness, of my singing, and then he would say "Concerto for Two Violins and Orchestra."

I: "Great. What's a good performance?"

He: "Oistrakh and the Philadelphia Let's see..." And he would already be on his way around the end of the counter, heading, in his rapid splayed-feet stride, for the record bin. He flipped rapidly and expertly through the records. Then he would lift the record out and hand it to me and continue to look through other records of the same work just in case I might not want his first choice.

He performed this musical-recognition feat on numerous occasions. Once in a while he was unable to recognize what I was trying to convey, but usually he was onto it in a manner of seconds. I was always amazed.

Then we might have a discussion, as he rang up the sale, about other goings-on in the record world, for example, the virtues of Glenn Gould's playing, recent orchestral recordings of this or that baroque work. I don't recall buying jazz records from him, but I bought a lot of Vivaldi, including, I think, all the recordings of the Vivaldi bassoon concertos then commercially available. I had become obsessed with these, especially with the last movement of the A Minor concerto (RV 497), with its descending "chimes" in the strings. Pure musical candy that I couldn't get enough of, and that banished all thoughts of suicide while it went reverberating in my head.

Clerks of his level of knowledge soon became a thing of the past. In the eighties, there was a Wherehouse record store in a little shopping center off of Wolfe Rd. in Cupertino. I can't remember where I normally bought records, but one day I thought I would give this store a try, since it was so close to my townhouse. I went up to the counter, asked a sweet young thing, "Do you have any Brahms?" She replied, "What group is he with?"

I went back once more, not able to believe that a person working in a record store could be that ignorant of great music. This time I thought I would ask her something a little closer to her time. "Do you have any Jazz at the Philharmonic?" She: "Look in Classical."

Dr. Riskin

One afternoon in late 1960 I knew I would not be able to continue another day, another hour, without someone to help me. And so, on my way home from work, I stepped into a phone booth on El Camino Real, near Page Mill Rd., and began leafing through the yellow pages under "Psychiatrists". I picked the name "Riskin" because it sounded Jewish and, who knows, perhaps because it reminded me of David *Raksin*, composer of "Serenade", the haunting theme of the cartoon "The Unicorn in the Garden" which Jimmy Giuffre played with the Modern Jazz Quartet on "The Modern Jazz Quartet at Music Inn" album (Atlantic 1247) that I had listened to so often. I think Dr. Riskin himself picked up the phone, and must have sensed the end-of-the-road desperation in my voice as I pleaded for him to take me as a patient. In any case, he set up an appointment right then and there.

It is no longer possible in this age to convey the terror which the prospect of homosexuality held for some men in those years. No totalitarian dictator or Calvinist theologian could have hoped to inspire a greater terror in his people than the one we lived in, and all of it was fed, day in, day out, by the mental health community, with their analyses of the signs: to be interested in girls was a sign of repressed homosexuality; not to be interested in them was an obvious sign of the same thing; to be only mildly interested, was a sign of bisexuality. The analyses were every-

where: in magazines, including porn magazines, and in books on the subject which were as plentiful as books are now on the subjects of women's issues and child abuse. My overwhelming preference for masturbation was a sign of my fear of sexual intercourse, hence of getting close to a woman, hence of latent homosexuality. My lifelong mother complex likewise. My continual preoccupation with sex was a consequence of my inability to have a normal, heterosexual relationship, hence.... My softness as a bandleader and manager, the photography episode in Scout camp, the incident with Ogden in junior high school, my fear of touching and of being touched, particularly by a man — all were definite signs of suppressed homosexuality. Yet, in order to keep going, I had to revert to the same state of mind I had adopted when my father was dying of cancer: somehow I had to find a way to believe that, even though all the facts were against me, somehow I had to be an exception.

Dr. Riskin (his first name was Jules) had an office on Ramona St. in Palo Alto, perhaps half a dozen blocks from the main downtown street of University Ave. He was slim, bald, with a few strands sticking up on top. He was soft-spoken but he pronounced every word precisely, carefully. He seemed to me the very essence of the Jewish professional catering to upper middle-class professionals. He had a reproduction of a Paul Klee painting — three clownlike stick figures on a brown background — on the wall along with his diplomas from the University of Chicago. He had no secretary, which bothered me at first, but which I soon took as a sign of his desire to stick with essentials, and, incidentally, to keep his charges to his patients as low as possible.

The Big Book

From the very start, and perhaps even with the psychiatrist in Bethlehem, I was convinced that there was a book somewhere in his office, about the size of Webster's Unabridged Dictionary, in which every mental illness was written down: name, description of symptoms, prognosis, including probability of cure. A book in which "I was completely explained" is how I thought of it. Therefore Dr. Riskin knew all along what the answer was — if there was any chance of my being cured, and if so, what I had to do to accomplish that — but, for reasons that ordinary people simply could not understand, he just couldn't tell me.

Over the course of my time as his patient, I brought up the Book several times. Each time he said that, No, there is no such book. I didn't believe him. Some thirty years later I found out from a friend who was in the process of getting a PhD in psychology that indeed there *was* such a book (although I don't know if Dr. Riskin had one in his office). It was (and is) called the *Diagnostic and Statistical Manual of Mental Disorders* ("DSM") and is published by the American Psychiatric Association. It is now (mid-nineties) in its fourth edition. It contains, according to the friend, "the official psychiatric diagnoses used by American psychiatrists and psychologists. Each diagnosis has a numerical code assigned, and the book gives a general discussion of each disorder as well as the official list of symptoms required to make the diagnosis. If one's health insurance covers psychotherapy, then usually the therapist is sooner or later asked to provide an official DSM diagnosis to the insurer. The DSM doesn't ... provide recommendations regarding what treatments are best for what disorders."

Inevitably, during our sessions, I brought up at least once, resignedly, knowing what the answer would be, the idea of treating myself, of trying to cure my neurosis on my own. But without a moment's hesitation he shook his head. Can't be done. The patient always lies to himself. I believed him, had not the slightest doubt he was right.

I don't think we ever discussed the possibility that there was some suppressed childhood trauma that was the real cause of my neurosis. Sometimes I would hope, briefly, there was, and

that in one or our sessions, perhaps by accident, he or I would say something that would suddenly bring it to consciousness and I would be cured. But I couldn't sustain the hope, because I felt I remembered all too well what had happened to me in my childhood.

A Therapy Session

Two times a week, typically on Tuesdays and Thursday afternoons, I think, I drove from work to his office. I think he charged $20 a visit, later raising it to $25. I would sit in the quiet, usually empty waiting room, leafing through a magazine, until the previous patient came out — usually (at least in memory) a tense-looking woman who looked like a PhD candidate at Stanford, or an associate professor on a tenure track, or the daughter of a wealthy family who has had all the advantages and simply can't seem to succeed at anything.

After his rather formal goodbye to her, he would look at me, and say, "Pete?" and I would get up and follow him through the door to the waiting room, past the unattended secretary's desk, and then turn right into his office.

He would go behind his desk. I would sit down in the soft chair opposite. Behind him was a window, with leafy green trees outside. On my right was another window looking out onto quiet residential Ramona St.

He: "So what's new?"

I would give a big sigh. Silence. Then: "I don't know where to begin."

Sometimes he would make no response, sometimes he would say something like, "Begin wherever you like."

I would give another sigh. "Well, there was this incident in the office... It's difficult for me to talk about."

Silence. He kept his eyes on me, his expression neither threatening nor consoling, but simply one of waiting expectantly. I realized I was about to blush, and so started doing my best to fight it off.

I, half to myself: "Maybe later." Pause. I was here to say things. I had to say something. The audience was waiting. "I had another fight with my mother." I felt how shallow this attempt to avoid the painful subject of the incident at the office was, and how tedious it must have been for him to have to put up with it.

He: "What about?"

I: "Oh, she insisted I come down to see them this weekend and I refused."

I tried not to meet his eyes. I sat there with round shoulders, half slumped forward in the chair, trying not to meet his eyes.

I: "I can't stand being in the same room with her." Pause. "Then I have to go through dinner with them, listening to her endless complaints. If only..."

He: "If only...?"

I, after a sigh and a long pause: "If only I knew that this didn't mean I was homosexual. These problems with my mother..."

No response.

I: "The Book probably could tell me."

He: "There is no book." With a sweep of the hand he shows that his shelves are there for all to see.

I: "Anyway, about this thing in the office... Well, Mari-jo, you know, this woman who works in my department, well, I heard today from someone who knows her that the reason she doesn't

have kids is not that her husband is sterile but that he is homosexual." (I can't remember what term I used. Probably not "queer". Certainly not "gay", which wasn't in use then.)

He: "And?"

I: "So it seems pretty obvious to me that the reason I like her and enjoy talking to her is that I am like her husband."

He: "I see. And if he likes a certain kind of music and someone likes the same kind, that is a sure sign they must be homosexual also?"

And so on. But at times the conversation degenerated into something much worse, much more boring for him, I'm sure.

He: "What are you thinking?"

I: "I am wondering what you are thinking."

He: "I'm just listening."

I: "But you are waiting for me to say something that will reveal if I am making progress or not."

He: "No, I'm just listening."

I: "Maybe I will say something, or make a certain movement which will be incontrovertible proof that I am a homosexual. Now you know what that something or that movement is, and I don't. But if I knew it, then I would of course try to avoid doing it. But then maybe you would know that's exactly what I would do, and the Book probably tells you this. But as it is, I don't know it, so maybe I am trying to read your own speech and movements to see if I have done it and you have concealed it."

Pause.

He: "So what's going on with ..." and he would name some other ongoing problem.

And so it would go, session after session, week after week, month after month, year after year. God only knows the stifling boredom it must have produced in him.

In memory at least, we seldom talked about my father. But I do remember describing the agony of the church service at my father's funeral, and how I wondered if my father would have wanted such a service, and Dr. Riskin remarking, "Funerals are for the living". It was the first time I had heard that observation, and it immediately struck me as particularly insightful, perhaps because it reminded me of my remark to my mother when I was a boy that her grieving for someone who had died made her feel better. In my old age, I found that the observation was by no means a modern one: La Rochefoucauld said, in the 1600s, "Funereal pomp has more to do with the vanity of the living than the honoring of the dead."

I Show Him the Journal

Early in my treatment, I told him I kept a journal, that I was ashamed of it, that I wanted to be a writer — God only knows how many times he had heard that particular confession. It was clear he didn't think much of the activity of keeping a journal, considering it a way of avoiding making contact with people, and (I assume) a way of writing without confronting any of the real anxieties associated with the craft. He eventually asked to see the journal. I found a way to postpone giving it to him. Weeks, months, perhaps years later, I finally agreed, selected two of what I thought were the least dreadful notebooks, and brought them in. I handed them — my life, my identify, my soul — with their black-and-white ink blot covers, to him. He placed them neatly on his desk. I endured the days of agony until our next meeting.

"Well," I said, "what did you think of them." He made some preliminary bland comments, and then, after a pause, he said, "But it's not literature, is it." I was crushed, having hoped, naturally, that he would say something at least along the lines of, "Well, all this is very crude, and confessional, but you know, you have the makings of a good book here."

Then, as my therapy progressed, he dropped the hint every once in a while that if I really wanted to make progress, I should give up the journal completely: throw out all the notebooks. Each time he made the suggestion, I felt like my heart had been cut out of my body. I made lame counterarguments, but considered my inability to let go of the journal as further proof I would never be cured.

"Confront Your Anxieties"

Sometimes, after enduring yet another of my long laments, he would say that if I wanted to make any progress, sooner or later I would have to confront my anxieties. These included not only giving up the journal, and, of course, getting into a relationship with a woman, but learning to tell jokes, in particular, dirty jokes, which I never dared to try for fear of blushing. I even blushed when he asked me, in what I thought was a wry, probing manner, why I used the term "get laid", which I (like most men) routinely used in reference to a man's having sexual intercourse with a woman, since, strictly speaking, it is not the man but the woman who gets laid. I flustered, explained what he already knew, namely, that the phrase was a commonly used idiom among men. At the distance of these many years, I no longer remember if he revealed why he asked the question. I knew that people would immediately recognize how uncomfortable I was in trying to tell a dirty joke, and would look down at their feet and somehow wait for me to get through it, then force a little laughter and feel sorry for me. I knew that they knew that I knew how shocking it was that John Franklin, the Swiss boy, was doing this awful thing. It took years for me even to make a try.

He also kept gently suggesting that it might not be a bad idea if I learned to lose my temper, or at least learned to show my anger in front of others. This, too, was absolutely beyond me because it meant risking being cast adrift with absolutely no one to like me. The people who tentatively allowed me to be among them were my only connection with humanity.

He Reveals a Little About Himself

In the course of those years — a total of six — he revealed a little about himself, usually in response to my persistent questioning. He said he was dong research on mentally *healthy* families. I immediately liked this idea — the fact that he was interested in healthy minds as well as sick ones — and I told him so. Another time he told me that he and his wife had sold their house in Palo Alto and bought a smaller one in the same city, and how surprised his friends and neighbors were at this, since every successful professional normally buys progressively larger houses. Another time he told me he liked Mozart, another time that he didn't believe in God. Strangely enough, this admission bothered me, because I felt it meant that there was nothing holding him back from doing whatever theory required.

A Dreadful Remark

I suppose somewhere around the fourth or fifth year of my therapy we came to discuss the picture of his two children which he had on his desk. I don't know if it was a new picture that he had set out, and that I had asked him about, or if I only then go around to asking about it, but in any case he replied, telling me, I suppose, their names and ages. There was a pause, I looking down at

the carpet. He asked what I was thinking. I said "Nothing." And at that moment this was true. But I began to feel that something bad had to be said. It may have arisen simply from a sense of envy of this successful man who had all the answers, plus a wife and children. He asked me again what I was feeling. Again I said "Nothing." The tug-of-war continued. Maybe my feeling was nothing more than a reaction to his asking me what I was thinking after we had discussed his children — as though whatever I said could not be taken at face value but must be concealing something. But eventually I was definitely thinking of something. I told him it was pretty awful, that I preferred not to say it. No, no, I should go ahead, he could handle it. I warned him again. No, no, go ahead. "All right," I said, "I'll tell you. I was thinking about your kids — what nice lampshades they would make."

There was a pause. Then he said, "Yes, that does hurt."

Although I cannot say I detected any change in his behavior toward me thereafter, I remain convinced to this day that forever thereafter I was a different person in his eyes.

He Saves My Life

I think it is a measure of his professionalism that, despite that remark, he came through for me at a time when, quite literally, my life depended on it. Around 1965 I received notice in the mail that I was to appear for my physical exam prior to being drafted for the Vietnam War. I of course discussed it with Dr. Riskin and asked if there was any way he could get me off. He was noncommittal but made it clear he would do his best. On the day of the exam, we potential draftees boarded a bus in Palo Alto and were taken to the examination center in San Jose. I don't recall a physical exam, but I recall being asked several questions, one having to do with whether I was under psychiatric care. I answered yes and provided Dr. Riskin's name, address, and phone number, saying that he would have to be the one to tell exactly what was wrong with me.

While I waited for the draft board's decision, I endlessly went over what I would do if I was declared fit to serve. Going to jail seemed more honorable, even though I knew it would probably finish my hope for a professional career; furthermore, as I was still young, I knew I would have to face the possibility of homosexual rape and that I couldn't tolerate. Canada, on the other hand was, for me, a place for people who would never amount to anything, a kind of pleasant, northerly wasteland for ambitionless whites who were capable of earning a decent living and nothing more. I had a third option, and that was moving to Switzerland, since, as the son of native-born Swiss parents, I had dual citizenship. For some reason, this obviously least-undesirable option offered little consolation to me at the time. The reason may have been that the idea of seeking refuge in the country that had produced my mother seemed almost (almost) worse than being killed in Vietnam.

But I never had to consider the alternatives, because within weeks I was declared IV-F and that was the end of the Vietnam War for me.

My not wanting to fight in Vietnam was purely due to the fact that I didn't think we had any business in that country, and not due to any moral scruples against war. During World War II, I and all the other kids in our block would have given anything to be allowed to join the armed forces and fight the Germans or Japanese. We would have run away from home and lied about our ages, because we knew, as all the adults knew, that this was a just war, that we, our country, and the other allied countries, were right and that we simply had to defeat the evil dictators who wanted to conquer the world. In the sixties, every left-leaning person knew that the Vietnam War was just the opposite: it was a politician's war, conducted in a remote place we had no business being in, that the Communists over there didn't really threaten us. I had by then come up with a

question which I felt I had to be able to answer in the affirmative before I participated in any war, namely, "If you get captured and are tortured, or if you are crippled for life, will you be able to say that you still think it was worthwhile that you had decided to fight?" The answer was emphatically no as far as Vietnam was concerned — and would have been the same regarding Korea and, needless to say, Iraq.

Of course not all the young men of the time had a Dr. Riskin to keep them out of the war. I remember several times in the late sixties, in a Palo Alto public library, hearing some of them talking anxiously, desperately, about ways of avoiding the draft. A certain lawyer could help you. Contact him. No, that doesn't always work. OK, then try this... I felt very sad for them, and hated the politicians who were all too willing to send these young men to their deaths.

I Am Cured

Sometime in my sixth year with him, as I was going over yet again all the reasons why there is no way to know if I was really homosexual or not (this possibly coming immediately after my confessing how much I wanted to have sex with some secretary at the company but didn't dare ask her out), Dr. Riskin said, after a pause, in a tone that only slightly revealed how exasperated he was, "You're not a homosexual". And that was it! Finally, the truth had come out! I had no doubt he said it because that is what the Book said. So I was cured.

Later that year, I met Marcella, as will be described, and for the first time in my life was able to have sexual intercourse. I strode into his office at the next visit, shook hands with him, told him what had happened — feeling particularly proud that I vindicated all his patience and had brought him a victory — and after few more sessions, brought the therapy to a close.

A Return Visit

Whenever the subject of getting a PhD came up in conversation, I would always think to myself, "I got my PhD in the sixties under Jules Riskin." That is how the experience felt to me in retrospect.

A year or two after ending therapy with him, I ran into him at a park in Palo Alto. He was with his wife and two children, both girls I seem to recall. I stopped, took a moment to be sure it was him, then said, "Dr. Riskin! Hello!" He seemed not to recognize me. "John Franklin, your former patient." He nodded, said hello, but clearly wanted our meeting to be as short as possible. Like any other patient in similar circumstances, I racked my brain trying to figure out what I had done wrong. I later described the incident to another therapist. The therapist said that the Party line in psychiatry is that the psychiatrist should discourage anything approaching friendship with patients; the only relationship should be the therapeutic one. But that was no consolation. Like it or not, he and I had become old friends over some six years of fifty-minute sessions usually twice a week. Now I was supposed to accept that his behavior throughout this time had been nothing but *professional demeanor*?

While I was working at Signetics, in the late sixties, he once called me and said he had a patient who he thought might benefit from talking to me. Would I be willing? I said of course I would. I gave him my home number as well. But the patient never called.

In the early seventies, I went back to visit him — just to say hello, and thank him for what he had done for me. He looked much the same though it was some five years later, and though his hair was a little grayer. The same careful, precise speech as before.

He asked about my job, my other interests, about my marriage. I told him I had gone back to mathematics. He said, "That's a young man's game, isn't it?" My heart sank. I was then in my

mid-thirties. He certainly didn't say it out of malice; in fact, he was just repeating a common belief. But nevertheless, to hear him reveal himself to be among those who take such beliefs for granted bothered me a great deal.

The last time I saw him was in a restaurant in Cupertino that was popular with the local professionals. There he was, sitting several tables away, his hair now white, with a very attractive young woman whom he was obviously eager to make a good impression on. I thought, "Why, you dirty old man!" But after the incident in the park I had no desire to go over and say hello.

Dr. Levin

Even though I always had a morbid fear of going to the dentist, I was always morbidly worried about the condition of my teeth. I somehow found a dentist in Menlo Park named Dr. Stanley Levin. Records show my first appointment with him was Dec. 3, 1960, for a cleaning, exam, and X-rays. Total cost: $8. (Within a year or two, the cost of cleaning had soared to $12, however.)

This good man was my dentist for some thirty years, and he said several times, in good-natured exasperation, that I was the worst patient he ever had. I, in turn, as a result of all those tortured hours under his drill, knew what my epitaph must be: "On the whole, this beats going to the dentist."

Fillings

My typical preparation for a filling ("composite-" or "amalgam restoration" on the bill) was two pain killers from a plastic container in the medicine cabinet (their source forgotten), or else the most potent stuff I could buy at the local drug store without prescription (Tylenol, etc.); a shot of vodka before I left the house, and then another shot from the bottle I stashed under the front seat of the car; maximum nitrous oxide as soon as I got into the chair; white noise with classical music behind it — Bach, Mozart — delivered through earphones, the noise turned up so that only by the highest concentration could I make out the music; and finally maximum Novocain or the equivalent. (He used to joke that the nitrous should be given to the dentist in addition to the patient.) Nevertheless, even with all this preparation, I would be clenching the arm rests of the chair in pain when the drill was still inches from my mouth. The image in my mind, which I often described to him in our black-comedy banter, was that my teeth were made of chalk, no, of a substance like that of white, peppermint candies; they were ready to crack open at the slightest touch and reveal the coiled, purple moist nerve which the spinning drill would soon entangle and tear out by the roots. At the end of the ordeal, which each time seemed unendurable — I was often just a few seconds from telling him to stop, I was leaving, let the teeth rot in my head — I was wet through my outer shirt and undershirt, and so was he. We soon took it for granted that we would each have to bring a change of shirts for each appointment. When I finally left the office, after sitting for a while in the waiting room to make sure the nitrous had worn off, as they insisted, my damp hair would be plastered down on my forehead and neck, the crotch of my pants also was damp.

Sometimes, in his ongoing campaign to make my visits less of an agony, he would offer to let me watch him put the needle in the gum, or to look at the stub of tooth left after the crown preparation. I thanked him but, with more sweat droplets breaking out on my forehead, said I preferred not to watch. I thought: I wouldn't be able to see the tiny hole in my gum where the needle had gone in, or the filling either unless I looked hard, which I wouldn't do because that would make

me think about what it really was, namely, a hole that had been drilled into my tooth and then filled with metal which at any moment could fall out, leaving the nerve exposed to the cold air.

(When the film *Marathon Man* came out in 1976, with its scene of a Nazi dentist torturing the hero by drilling into his teeth without anesthetic, Webb McKinney, a neighbor with whom I carpooled (he will be introduced in the first chapter of Vol. 3), knowing of my agonies in the dental chair, it, warned me not to see it. But I already had, and I told him, "It didn't bother me at all. At last: realism in the movies!":)

Another guy at Beckman also was a patient of Dr. Levin's. I forget his name: Rick, I think. He was in his twenties, worked in drafting and had the kind of good looks and manner of a man who always has a beautiful girl friend or wife but also has a drinking problem caused by some grave, emotional wound that will eventually kill him. He and Levin sometimes when out for drinks together. There was a kind of three-way friendly ongoing humorous interchange, two at a time, among us. I must mention in passing that the head of Drafting, a white-haired slim, short guy with a patient manner, who used to drop in to my office to talk occasionally, once told me that musicians made the best employees, because they had learned how to work as part of a team. He always was glad to hire a musician, he said, when I told him I had been one.

For many years, I didn't understand why I had this morbid fear of being worked on by Dr. Levin, because everything about him bespoke a man who had no intention at all of hurting you. Here was a man with a good Jewish sense of humor, a quickness to respond to his patient's jokes and word-play, an obvious skill and deep concern about doing the best by his patients. He was a deeply conscientious member of his profession. Hygienists said that, on his day off, Friday, he would come in and do paperwork, determined that everything be kept up-to-date. But nevertheless I had a profound dread of going to him, a profound dread of his working on me — and, I think, he had the same feeling about me, though for different reasons, of course.

Teeth Cleaning

Teeth cleaning ("prophylaxis" on the bill, almost the same word as the one for you-know-what) always went better because, at the very least, it was done by female hygienists. Doctor Levin's assistant, Janet, may, when all is said and done, be the one reason I never actually bolted out of the chair, because this would have meant that I wouldn't get to experience her pressing her leg against mine as she hosed out my mouth after a filling or prepared the tooth for the crown, or put in the crown at the next appointment. (If only it were allowed for dental patients to stroke the thighs or breasts of beautiful dental assistants, just once in a while, there would be much less complaining, at least among men, about having to go to the dentist.)

To take my mind off the idea of someone scratching, picking away at my soft, peppermint-candy teeth with a sharp piece of metal and sometimes pressing against the teeth a vibrating fork-like object[1] that looked exactly like the pens we had to use in RPI for those accursed engineering drawings, I got a conversation going as soon as possible. Usually it was about the hygienist's love-life or family life. Most of the hygienists aroused me sexually. I liked the way that sometimes one of their breasts touched my ear as the hygienist stood behind me to work on the insides of my upper teeth. I developed a genuine affection for some of these women: one was from Pennsylvania and did paintings at home and later got married and had a child and left the business; then there was Bonnie, who was suddenly abandoned by her husband who up to then led her to believe that their love would last forever and who thereafter talked of nothing else, to the point

1. Called a "Cavitron", I believe.

that I really believed her mind had been permanently affected by the blow; and there was Rita, who was always full of anxiety over finding the right man, who wanted to read the stories I told her I was writing about my own search for a relationship, and who, in her determination to do a good job, to do at least *something* right in her life, frequently caused me more pain and probably drew more blood than any of the others.

The last and best, without question, was Rochelle Hamm, the only hygienist I ever had who I can truly say was gifted for this work. Her father was a dentist, still active in his sixties. She had an undergraduate degree in chemistry, and so she could answer your questions about plaque and tooth decay on virtually any scientific level you wanted: atomic, molecular, chemical, you name it. She was businesslike, thorough, but always able to track my sense of humor, and never once caused me a moment of pain. She frequently asked, as she worked away, "Feeling any twinges?" I: "No." She: "Let me know if you feel anything." The simple truth may be that, with patients like me, that is all it takes to cure the neurosis: a dentist or hygienist who obviously respects his or her patient's anxieties, and does not consider it the patient's business to learn to live with the dental practitioner's way of going about the business at hand, but instead considers it the practitioner's business to be mightily concerned above all not to hurt the patient. None of the "This doesn't *really* hurt!" that I had heard all my life, even from the most well-intentioned dentists. The simple task is for the dental practitioner to make it clear to the patient that the practitioner considers him- or herself subordinate to the patient. That's it. The patient is on top. But normally just the reverse is the case and no matter what words are said, the message is clear: "Your business is to endure what I subject you to, because it can't possibly hurt."

I often told Rochelle that I was going to endow a chair at Foothill College so she could teach others to practice the craft as superbly as she did.

Nitrous Oxide Fantasies

Nitrous oxide may well be the most creative of all anesthetics. Next to feeling Janet's leg pressing against mine, it was the one thing I looked forward to in any session under the drill. On a summer morning, as the nitrous began to take effect, I saw for the first time, outside of a painting, how a shadow, a geometric region of color, for example, the blue sky seen through the window, could be every bit as real as a wall or a piece of dental equipment. In fact, I suddenly saw and understood that what was most real were geometric shapes, and the actual objects that produced them were only of incidental importance. "That quadrilateral of blue, next to the gray one (shadow on the wall)...": such, did it seem, was what conversations should be about.

Another insight that nitrous brought was what ego-lessness, in the Zen Buddhist sense, must be like. "Everything is present except the self-awareness of the person who is experiencing it." It seemed to me a truly wondrous state if you could really get inside of it and stay inside of it. A world in which the only thing that exists is the world. The world exactly as you ordinarily perceive it, except that there is no you.

Perhaps my best insight concerned a way of eliminating pain from dentistry. The idea was that people would have the tops of all their teeth removed, down to the gum level. Then, new, synthetic teeth would be screwed into the remaining part. Then, instead of going to the dentist, you would simply unscrew a couple of teeth at a time, put them in an envelope and mail them to the dentist. A couple of days later they would come back, all white and beautiful, and you would then simply screw them back in.

The Battle Over X-Rays

Apart from our ongoing battle in the dentist chair, Dr. Levin and I also went at it over the subject of X-rays. Even before the acne treatment I was X-ray-phobic. The problem only increased over the years. I fought off every attempt of his to do full-mouth X-rays each year. We would bargain: I: "OK, I'll let you do partials in February, but then no more for eighteen months. I'll sign a waiver." Then I would fight to make it twenty months. I told him how drastically the allowed maximum doses had dropped during the century. "Do you know how they decided you'd had too many X-rays at the start of the century?" I asked him. "By your skin turning red." I told him about the cancer deaths from the practice in the thirties of shoe stores X-raying feet inside shoes. He listened, nodded, and emphasized how safe the equipment was, how often it was inspected, how the radiation was the absolute minimum that would expose the film, how the patient was always given a lead apron, how there was a risk in not catching serious dental problems. And, to his credit, I must say that he gave me a paperback book on the medical use of X-rays written by a woman doctor who clearly felt the medical and dental professions were causing more harm than they cared to admit.

In the eighties, I read an article on the high rate of thyroid cancer in people who had had X-ray treatments for acne. The peak incidence of the disease seemed to occur about 23 years after the treatments. I was at the thirty-year point, but I wrote a letter to Dr. Frank in White Plains, expressing my concern. He replied as I had expected: there was nothing to worry about; the amount of radiation I had received was fully within limits. I knew he was doing what he could to discourage lawsuits, and I was furious. I talked to my internist, Dr. McKenna, saying I didn't believe what Frank was saying. He said he would write him, ask for copies of the treatment records. He got them, and said to me, "Well, you had enough X-rays to wipe out the city of Menlo Park."

Death of My Brother

I think I saw my brother only once after I arrived in California. He came out to the West Coast to visit a girl he had been dating. Her name was Joni Bloch, and, according to my black book, she lived at 1515 Hilvard in Eugene, Oregon. My mother had written me that she was the daughter of the famous composer, Ernest Bloch. (My black book has an entry for someone named Jody Bloch "(Joni's brother) 251 North El Camino Real, Apt. 5, San Mateo, Calif," and I recall walking with David along a sidewalk next to a high wall, in the town of San Mateo.)

I now come to an event that even after forty years, I am barely able to think about, much less write about. One evening in March of 1963, the phone rang. It was my mother, but her voice was almost unrecognizable: in a hoarse croak of utter horror and despair, she stammered out "John — David... is dead." And then a flood of uncontrolled, choking sobs. I heard the voice of a man in the background; he was obviously trying to soothe her. She said something about a terrible car accident, but couldn't go on. The man took the phone, told me that my brother had been killed in South Carolina while stopped by the side of the road. I was unable to breathe for a while, then starting gasping for breath. Later, I was able to talk to the same man when my mother wasn't present — I think he was one of my mother's doctors. He gave me more details about what had happened. My brother and his fiancée (not the above-mentioned Joni) had gone on a driving tour of some of the Sourthern states during Spring break. The car had developed engine trouble. He had pulled off onto the side of road, opened the hood, and was leaning over the fender, on the road side, trying to figure out what might be wrong. Suddenly a car driven by a drunken black man came weaving down the road, swerved to the right, and struck my brother. The doctor said that

my brother had been cut in half. His fiancée, who was sitting in the passenger seat, suffered only minor injuries. The man said that they had found some way to convince my mother that the coffin should be kept closed at the funeral (which I did not attend) — not too difficult, since she had always looked down on the Catholics for allowing the body to be seen. Of course, the real reason was that they knew it would utterly destroy her if she saw what had happened to the body of her son.

I almost had no time to think about what my brother must have suffered in those final moments — for how many horrible seconds did he realize what had happened to him? — because I immediately felt, as I had when my father died, that I had to put all my energies into keeping my mother's all-consuming grief from completely overwhelming me. There is no question but that her son's death destroyed what was left of my mother's mental health. For decades afterward, she would talk about him, weep over his memory, and each year always remind me, as February approached, that February 24 had been his birthday, and then when the day in March approached on which he had been killed, of how many years ago it had been. She had a scholarship fund set up at Mt. Hermon, where he had been a high school student, and each year contributed money to it.

In the months after his death, his fiancée wrote me a number of letters, and we even met once in New York City. It was clear that she was somehow hoping that I could be a reincarnation of my brother, that we could begin a relationship. I still have some of these heartbreaking letters, and I think copies of one or two I wrote in reply. I also have one or two letters that he had written me a few months before his death: the cheery letters of a young man of 21 in his last year of college.

All I could think of was how I had bullied him, how cruel I had been to him when he was little, and how there could be absolutely no forgiveness for that.

Quitting Smoking

In winter of 1963, after reading a *Scientific American* article on the health effects of smoking and, then, in 1964, hearing about the Surgeon General's report, I decided I had to quit if I was going to live long enough to complete my life's work. In the early sixties I was smoking four packs of Pall Malls a day, sometimes, in my all-consuming nervousness, having one cigarette going in the ashtray and holding another in my hand as I spoke. My teeth were yellow except for the few days each year after a cleaning. I had nicotine stains on my right index and middle fingers.

I had already tried to quit several times. I tried cigars and even a pipe: I would sit in movie theaters with my long, Peter Stuyvesant pipe and despite the need to constantly puff on it to keep the tobacco burning, which burned the roof of my mouth, tried to convince myself I was comfortable smoking with this contraption. But in any case it didn't fit in with modern office life. Nothing worked.

Somehow or other, possibly through a fellow employee (why do we never remember the exact details of such things?), I heard about The Five-Day Plan for Quitting Smoking. It was sponsored by the Seventh-Day Adventist Church. (You had to keep the day-count straight when you told people about the program: it wasn't the Seven-Day Plan sponsored by the Fifth-Day Adventist Church.) I called the number and signed up for the next program, which would be in March. The woman I spoke to said that I should prepare for it as though it were a major operation. I should try to have my business affairs in reasonably good order, and have no major stresses in my personal

life. I should consider going through the program to be the equivalent of having a limb amputated.

We met on a Monday evening in a nondescript church on Alma in South Palo Alto, a couple of dozen nervous, anxious, smokers. We were allowed to smoke during the introductory remarks. The speaker said we shouldn't underestimate the difficulty of what we were about to do. Then the speaker said, gently, as though this weren't really the end of our smoking careers, that we should now put out our cigarettes. I bent down and crushed out my cigarette in the ashtray at my feet. We were asked to decide on a buddy, the idea being that before we lit another cigarette, we would call him or her. I chose the guy sitting next to me. We nervously shook hands. The speaker then said that, to create the Five-Day Program, they had put together every known, effective technique for breaking habits. Some 63% of people who complete the program, the speaker said, and who continue to follow the prescribed guidelines afterward, quit smoking permanently. I immediately warmed to the fact that they made an effort to keep track of their successes and failures. We were to meet at the same place for the next five evenings. The speaker repeated what the woman I had spoken to had said: that we should make no mistake: giving up smoking is like having a limb amputated because, in fact, we are giving up a part of ourselves that has been with us every day and night for years.

We were given a booklet that prescribed a daily diet. No alcohol, no coffee, because these trigger the cigarette response. Each morning when we got up we were to take a shower: first warm water, then, standing there, we were to suddenly turn on the cold. The shock was to replace the nicotine shock we got from our first cigarette each day. We were to drink large amounts of water each day to wash the nicotine out of our systems. We were to follow a prescribed diet of which I remember only that I ate a lot of canned peaches, cottage cheese, and lettuce.

Each evening's program consisted of a different argument for the value of quitting smoking. A young Stanford surgeon spoke to us about operations to remove lungs, then showed us a movie of a lung being lifted from a patient's chest. Then he passed around a slice of a sheep's lung to show how white a normal lung looked that had not been subjected to cigarette smoking. (A sheep's lung was supposedly very similar to a human lung, a specimen of a nonsmoker's having been impossible to get.) Then he passed around a slice from a smoker's lung. It was completely black, as black as the inside of a chimney. It looked like black lace.

But the two best pieces of advice they gave us were, first, that you haven't broken a habit until you no longer think about it. That, I felt, got right to the heart of the matter. The second was that each time you resist resuming a habit, the next time will be easier. That got me through — just barely — the worst times in the months to come.

On the last day they gave us a card to carry with us from that day forward. I still have it. It reads as follows:

MY DECISION

Because I believe tobacco is detrimental to my health, and illness due to smoking would both jeapordize[sic] the security of those I love and hinder further service to my community, I hereby choose to cease smoking from this day forward.
Decision Date
Signed

In pencil I filled in the date — March 5, 1964 — and signed it.

We were still supposed to call our buddy before we lit another cigarette.

And then began the worst nine months of a life that already was as bad as I thought any life could possibly be. I kept myself going with Life Savers and chewing gum (Wrigley's Spearmint and DoubleMint, mostly). My mouth was bathed in a warm sugar water bath from morning till night. In addition to candy there was, of course, the usual coffee with sugar and donuts. I would quickly brush my teeth in the morning or evening but, like most other people then, I never used dental floss. Hygienists would mention it with a mild scold as they handed you the free toothbrush at the end of a cleaning session, but that was a degree of dental virtue I simply had no time for. In the midst of all this agony, I had to continue to be a manager. Cor Laan was unusually sympathetic, since he had tried quitting several times also. But there came a day when I made an agreement with myself: one more episode like this last one and I'm going to start smoking again. No one can be expected to live like this.

After making his post-cleaning exam a year later, Dr. Levin said that I had a total of 43 cavities. Some of them were still quite small. (According to his office records, I had two cavities filled in'64 and 21 filled in '65. I cannot account for the discrepancy between the number 43 that I remember and these records.) He had never seen anything like it. In fact, he delivered a paper on me at a dental convention, during which he projected a slide of my X-rays from before I quit, and then those from a year later, and asked the audience how many years they thought the patient had aged in between. The typical reply was 20 to 25 years.

I have never smoked a cigarette since, although I still, every year or so, dream that I have started smoking again, and am filled with self-contempt. "After all these years, I must have weakened! Oh, no..." I started smoking a cigar a week, without inhaling, in the early eighties, and now smoke two or three a week.

Years after the Five-Day Program, I once saw that Stanford surgeon in the basement foyer of the Olympic Club in San Francisco. I went up to him, said hello, and thanked him for what he had done for me. He seemed pleased, in the reserved way that surgeons have.

Quitting was the most difficult thing I have ever done in my life. Years later, my telling my son (more than once!) about the ordeal may be one reason why he apparently never had the slightest interest in cigarette smoking.

Writing

I will begin with a quotation:

> If only I had been able to start writing! But whatever the conditions in which I approached the task (as, too, alas, the undertakings not to touch alcohol, to go to bed early, to sleep, to keep fit), whether it were with enthusiasm, with method, with pleasure, in depriving myself of a walk, or postponing my walk and keeping it in reserve as a reward of industry, taking advantage of an hour of good health, utilizing the inactivity forced on me by a day of illness, what always emerged in the end from all my effort was a virgin page, undefiled by any writing, ineluctable as that forced card which in certain tricks one invariably is made to draw, however carefully one may first have shuffled the pack. I was merely the instruments of habits of not working, of not going to bed, of not sleeping, which must find expression somehow, cost what it might; if I offered them no resistance, if I contented myself with the pretext they seized from the first opportunity that the day afforded them of acting as they chose, I escaped without serious injury, I slept for a few hours after all, towards morning, I read a little, I did not over-exert

> myself; but if I attempted to thwart them, if I pretended to go to bed early, to drink only water, to work, they grew restive, they adopted strong measures, they made me really ill, I was obliged to double my dose of alcohol, did not lie down in bed for two days and nights on end, could not even read, and I vowed that another time I would be more reasonable, that is to say less wise, like the victim of an assault who allows himself to be robbed for fear, should he offer resistance, of being murdered. — Proust, Marcel, *The Guermantes Way*, Part I, tr. C. K. Scott Moncrieff, Modern Library, N.Y., pp. 199-200.

I continued to try to write short stories. Sometimes prose poems. All of it wretched, hopeless, girlish beyond belief. I got an idea for a science fiction story, which I spent countless hours trying to write. It was about a spaceship on a long journey. The pilot sat alone in a cockpit similar to that of an airliner. He was so lonely for Earth that he put a box of earth behind his seat, so he could smell it during the interminable hours he sat in his dark compartment. It was another "Long Way Home". Perhaps some writer could have made something out of the idea, but I wasn't the one. As soon as I had written a sequence of more than five words or so, I would always know that that wasn't among the sequences of five words that the story needed. And this failure was just another one of many to drive me into further hatred of myself.

In my desperation, I even tried writing comedy. I sent a sketch to Red Skelton of an inept trumpet player trying to play a solo. I never received a reply.

"The Guardian"

In that barren, converted garage in Menlo Park I began a years-long effort called "The Guardian", based on a dream I had on waking, in which at some time in the future I was flying through black clouds back to New York City, where I got a job as a draftsman. I was invited to a strange weekend party in a statue like the Statue of Liberty, left over from centuries before. It was called "The Guardian". The men, all wearing dark blue suits, began fondling each other. I found a woman with too-large legs, small breasts. We went into another room, made love, afterward sat back against the wall and made half-hearted conversation. Suddenly the statue began to shake, we all ran downstairs, out into the plaza. We saw the Guardian's fist shaking, stones falling off it, watched the fist descend toward the head, and we knew that, when the fist struck the head, a nuclear explosion would be set off, destroying us and the city. We realized that the statue had been placed there to detect a scene of depravation such as I had just witnessed and participated in. "Leaning against the wall! That did it!" I shouted to the woman.

I spent more hours on this poem/story than on anything else in my life with the exception of attempting to prove Fermat's Last Theorem and solve the $3x + 1$ Problem in my late forties, fifties, and sixties. I knew from the start that the task was hopeless unless the story were written in a trance. Nevertheless, I kept on trying, endlessly revising, attempting to turn off my criticial mind and trying again, trying to write it from the word sounds only, climbing the walls in desperation for a way to find the right words. Was it doomed to failure if it began with "I"? Was there a somewhere where the right expression of the story existed, and if so, how could I find that somewhere? Just give me the first few words, that's all I ask!

The Unanswerable Questions described in the chapter, "Lehigh" in Volume 1 of this autobiography, continued to torment me.

I had the squashed-down feeling that I imagined the professor of English in an obscure, genteel liberal arts college had. I, a worthless man, was carefully shaping, working over, every scrap

he wrote, whether it was a letter or a page for a manual or a story. I wanted to be like T. S. Eliot and write perfectly. I spent days over letters to R — and Heim. R — sensed this, and kidded me about it. And at the same time I despised this abominable eagerness to please the immortals, despised my weighing every word so that it would accomplish all things: show I had exquisite, irreproachable manners, was original, was daring but yet not so daring as to arouse the contempt of those who know. I would spend a lifetime sucking up to immortality.

One night when I was facing up to the full degree of my failure, my lack of talent, my uselessness, I heard a police car siren somewhere in the distance. I thought of the red light on the police car blinking on and off as the car raced down the street. And it occurred to me that, even with this kind of despair, I would never be able to beat Kafka at suffering; mine was all too superficial, and therefore he would be remembered, and I wouldn't. The realization that even my suffering was a failure, reduced the rest of my life to a mere killing of time.

Another night, suffering from diarrhea, having filled the toilet with lots of pieces of soft bown shit which turned the water a deep brown, and having made the bathroom rank with watery diarrhea stink, I pressed the handle, lowered the toilet seat and was in the process of washing my hands when I heard a sickening splash on the floor, and turned to see the brown liquid pouring out from under the toilet seat. In an instant it was at the bathroom door, I dancing ahead of it. I had no carpet to pick up, but I grabbed shoes and socks and flung them onto the bed, plus whatever books and magazines were on the floor. The smell filled the room, the water, with the little bits of brown matter in it, covered the floor, seeking, exploring, finding, new places where it could go. I would have to tell Mrs. — what had happened.

I don't remember how I cleaned up the mess, but I doubt if I could have brought myself to have someone else do it. My self-contempt was boundless: I, the failure at everything except holding an office job, had now received a clear message from the world of how worthless I really was.

Hooray for the Visiting Chairman!

Each day when I came home from work, I had a glass of beer, maybe made some soup or a salad, and then settled down to the ordeal of forcing myself through two hours of work on a novel I decided to title *Hooray for the Visiting Chairman!*. It was a comic fantasy about a man, the Visiting Chairman, who is hired to take over a meeting in a place called the Palace of Glass. A plot of sorts develops out of his attempt to track down a man named Krantner who was supposed to attend the meeting but didn't. The Visiting Chairman has a dutiful, all but mute, assistant named Kariostacklich. In the course of the search, the two meet various characters including a beautiful girl, a boozy old woman, and the chief administrator of the Palace. The style was an attempt at a fond derivation of Dickens in *Pickwick Papers*.

It was excruciating agony. The work table was in the middle of the studio, with my typewriter in the center, the completed pages on one side, blank paper on the other, a pencil or two handy. It was the old problem of having to go out of myself, being pulled out of my one and only secure hiding place to be judged by a public I hated and despised and feared, namely, supercilious editors and professors. Each word was written before this Gallery. I could see them shaking their heads as I placed my fingers on the keyboard — "No, he won't succeed that way, oh, no, that much is clear: he didn't review yesterday's pages first; there hasn't been a writer in — how many years is it now? — 130 — yes, of course, 130 years, who has written anything worthwhile sitting down the way he did and simply pulling the chair forward and rolling in the blank sheet of paper — of course, there was the case of ... but his case doesn't apply here for the reasons set forth in the

paper by Abramowitz and Stern..."

I set the goal of two hours a night, five nights a week. After I had put in my two hours, I could do what I wanted. But the pain of sitting there in the middle of the room in complete solitude and forcing the next what-happend onto the page, knowing it was no good and would have to be endlessly revised and even then would be no good — the pain was so bad that I seldom completed the full two hours. Which meant that I had to pay back the time on the weekend. I was always in debt, always falling behind, just like in school.

Orwell remarks, in *The Road to Wigan Pier*[1] that "to write books you need not only comfort and solitude...you also need peace of mind." He speaks of the "spirit of *hope* in which anything has got to be created." I may have had physical comfort and solitude, and I may have had a desperate kind of hope — the kind that the condemned man has in the last hours prior to his scheduled execution, but peace of mind I had absolutely none of. Very few things I have done have been more difficult than writing that book. I was tormented by the questions described above. I spent hours and hours polishing a sentence, a paragraph, absolutely convinced that I would be saved if I could somehow figure out the right sentences.

After my two-hour ordeal was over, I went to a bar called The Tunn on El Camino Real in Menlo Park. It was run by a fat young blonde whose father, so it was said, had given her the money to buy the place. I'm not sure what I drank: maybe a beer, maybe just coffee. I know that I smoked my usual Pall Mall cigarettes. I sat at the high, thick, dark-wood bar with the raised, rounded edge and tried to read in the bad light. It was here that I first heard about Wittgenstein. Another regular and I were talking — perhaps I had been reading a philosophy book — and he commented that this guy Wittgenstein had said that all philosophical problems were really language problems, and that the aim of philosophy was to show the fly the way out of the fly bottle. I thought that a thoroughly original idea, and sometime afterward bought and began reading Wittgenstein's *Tractatus Logico-Philosophicus*, which I considered very deep because of its barren style, especially given the ponderousness of its title. Later I bought the *Philosophical Investigations*, considering that an even deeper work, in both cases because they were so austere and because I didn't really understand them. Eventually, however, I decided that Wittgenstein was vastly overrated, and set forth the reasons in the chapter "Philosophy" in my book of essays, *Thoughts and Visions*[2].

Another guy I met there, or maybe it was the same one, wanted to write a computer program that would keep track of all races by all racehorses, the track conditions, date and time of each race, jockeys' names — everything that could possibly influence the outcome of a race — and from this information the program would tell you what horse to bet on in any given race. I reminded him, and I think rightly, that the cost of simply keeping all that data current would probably be greater than any amount he could win.

I finished *...the Chairman* — I should say, I allowed myself to regard it as finished — after about a year. Somehow I got the name of Lynn Nesbit, who was not then the famous New York literary agent she was to become. She thought enough of the book — she said it was "pungent" — to try peddling it to a few publishers. But none was willing to publish it and I don't blame them.

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1. Orwell, George, *The Road to Wigan Pier*, Harcourt Brace Jovanovich, N.Y., 1958, p. 82
2. On the website www.thoughtsandvisions.com.

I came to refer to the book as my "good failure" because (a) it was a comic novel, and (b) in one or two places (a few lines here and there) I felt I had achieved the rotund, droll, comic effect I was after. In the next few years I wrote parts of a couple of more novels, but they were much worse than the *...Chairman*.

The Two Lesbians

For reasons I can't remember — possibly simply a desire for more space, possibly because I liked the term "studio apartment" (a studio is where an artist works) — I moved to a studio apartment at 1523A Woodland Ave., next to San Francisquito Creek in Palo Alto. The apartment was one leg of a squarish, U-shaped house. The interior was knotty pine, the furniture drab but perfectly adequate for me. In the other part there lived two lesbians, one clearly butch, the other clearly femme. The butch one was the type of woman I despised: she was from a rich family in the Southwest, and was at Stanford in the process of getting a PhD in linguistics, the subject of choice for brainy, upper class women then, and I suppose, now.

My contempt for her was increased by her rough, masculine-looking face. She of course wore no makeup. She had short, black hair. I thought, "You miserable bitch, you hate men and yet you want to look like them."

She made it clear that she was interested in me, not, of course, sexually, but, I think, because I was an intellectual. Sometimes I got the impression that her questions about what I was working on were mainly aimed at reassuring herself that she was, if not always smarter — after all, I did work for a technical company in Stanford Industrial Park — but far more knowledgeable about the important subjects and what opinions to have in them.

Her girlfriend had an even shorter haircut and was truly ugly, with large eyes, pimples, and large lips. She worked as a grammar school teacher. But in personality, she was much softer, and I took a liking to her. Once we went out for coffee in Whiskey Gulch, the street of bars and a couple of third-rate restaurants a few blocks away, right next to the 101 Freeway. While I was still living in my studio, she got married (to a man), and of course moved out. Her lover took an extended vacation after that.

Manny's Courage

Unlike virtually every other manager I have worked for since, Manny Gordon had the courage to stand up for what he believed in, even if this was clearly not what the company wanted. The best example occurred as a result of a letter I wrote to Pres. Johnson in the mid-sixties. I had watched, on the TV evening news, the execution of a black marketeer in the streets of Saigon, and was so furious that I wrote (perhaps preceded by "Re the recent execution of a black-marketeer"):

"Dear President Johnson:
You fucking son-of-a-bitch, I spit on your Vietnam policies.
John Franklin"

I included my address.

A few weeks later, I was called down to the office of Bob Cunningham, the head of Personnel (fondly known among the division employees as "The Warm Human Experience" from his fondness for the phrase in farewell talks for employees who were leaving the company: "Knowing ... has been a warm human experience"). There in the office sat Cunningham, Manny Gordon, and two guys I had never seen before. Cunningham introduced one as the chief of detectives of the Palo Alto Police Dept., the other as a member of the Secret Service. The latter handed me a piece of paper and asked, "Did you write this?" It was my letter. I said yes. Then he asked if I owned a gun. I said no. He said they wanted to be sure that I wasn't going to take a shot at Johnson the next time he came to San Fransisco. Then he said, solemnly, "We can have you prosecuted for sending obscenities through the mails, but since you signed the letter and gave your address, that is in your favor." He seemed to be thinking over what my fate should be. Then he said, "All right, we'll put you on probation for six months." Before leaving town for any reason, even if it was just to go away for the weekend, I was to call him at a number he would give me. I agreed, and thanked him for his leniency.

Someone later told me that the government confronted the employee in the presence of the head of Personnel and the employee's boss in an attempt to get the employee fired. Afterward, however, Manny spoke to me, and seemed concerned to make sure I understood he didn't take the matter very seriously, that I needn't worry about my future at Beckman. Whatever pressure the company put on Manny, he stood firm, and I kept my job.

I couldn't resist trying a little passive-aggressive behavior in the course of my probation period. And so, not only did I call the Secret Service agent when Marcella and I went away for a couple of days to visit Marcella's parents in Lake Tahoe, I also called him when we drove to San Francisco, or to visit friends in the East Bay. In fact, he was getting a call almost every week from me, along with the precise details of where we were going, and why, and when we would be back. Soon it began driving him crazy. Once he was on the verge of losing his temper. "All right, all right! Look, you don't have to call me every time you get in the car, for Christ sake!" Thereafter, I felt free to pick and choose when I called him.

During the six-month period, on at least one occasion, we were visited by a member of the Secret Service: a short guy in a black suit and black hat and no sense of humor knocked on the door, said he was from the Secret Service and asked if I was still living there. I said yes. He seemed a little disappointed at finding such law-abidingness and went away. Thereafter I heard no more from the federal government.

Another example of Manny's courage occurred when he received notice from management at the company headquarters in Fullerton, Calif. — some said it came from the president of the company, Arnold O. Beckman himself — that his lab would be asked to do research on germ warfare as part of a contract Beckman had received from the government. Manny wrote back a letter stating that not only was no germ warfare research going to be done in his lab, but that if he was forced to do it, he and every scientist on his staff would walk out and make sure the local newspapers found out why. No germ warfare research was done.

My one memory of the Cuban missile crisis is centered on him. We were listening to the reports on portable radios, talking about it among ourselves, while trying, as best we could, to get a little work done. I had to speak to him about something and went down to his office, which was on the first floor. I walked in, he was sitting with his hands folded at his desk . He was clearly very troubled. "Do you realize," he said, "that this may be the last day of the human race?" He said it not flippantly or cynically, but in a way that made clear he had been contemplating that possibility as very likely to happen in a matter of minutes or hours.

A Seminar That Changed My Life

One day, I think in 1966, Manny passed the word that he was going to give a little after-hours seminar on something called *symbolic logic*. Apparently it was related to computers in some way. Well, hell, symbols were my bag; I used symbols every day; and logic was important, especially if it had anything to do with computers. This was something I had to look into.

He handed out a set of notes. I still have them in a three-ring binder, one of the old kind, with thick, hard covers encased in a kind of blue-gray rough fabric. The mimeographed pages, with their blue ink, are turning brown at the edges. I assume he wrote all the notes himself — some 81 pages of text, with 21 pages of exercises and an equal number of pages of answers. I have no idea what had inspired him to give the seminar. Did his management say, "We have to get our people prepared for the computer age"? Or did he just become interested in it and, being Jewish, find it irresistible to teach it? The first page of the notes begins:

> Introduction
>
> Logic is the science of reasoning, and like any science, has as its business the pursuit of truth. What are true are certain statements; and the pursuit of truth is the endeavor to sort out the true statements from the others, which are false. As far as truth is concerned, logic is an all-or-none phenomenon, i.e., a statement is either true or false, there is no in between. Thus, logic follows the traditional mathematics in that
>
> $a = b$ or
>
> $a \neq b$.
>
> There is again no middle value.
>
> Truths are as plentiful as falsehoods, since each falsehood admits of a negation which is true. It is a commonplace, inaccurate but not unfounded, that a statement is true when it corresponds to reality, when it mirrors the world — or, which is the nearest we can come, by comparing it with our experience of the world...

And on it goes, through definitions of signs, of significance and meaning, of descriptions, then propositions, logical operators, truth tables, use and mention, signs and names of signs, tautologies, contradictions, contingencies, the method of deduction, rules of indirect proof...

To me, it was a revelation to learn that truth and falsehood could be captured in such clear and uncompromising rules. I was fascinated by the idea — not merely an idea, but a method — of reducing truth to a table — the idea of working out the truth of a complex statement about ordinary things. Up to now, truth had been what somebody with sufficient authority said it was. If a person was scientific material, he had special access to the truth, of course, but the ordinary person, or, in particular, the liberal arts person, could not grasp this truth without performing the experiments, and that required special equipment, special ability, and, of course, the right degree. But here, the rules were so simple and clear that anyone could verify for himself the truth of a statement.

Most important, however, was the fact that words — which were weak, everyday things appreciated primarily by liberal arts types, namely, those who weren't very bright, but in any case lacked the most important ability of all, namely, mathematical and scientific ability — words

were linked to mathematics, so words too could be important! The English major had access to the most important things! He could have a place in the world! Words could be made official, worthwhile of treatment by the most important discipline of all. What they dealt with could have the same value as what mathematicians dealt with.

And even though this new way of deciding truth had a mathematical rigor, that rigor seemed completely different from the only kind I had known so far, namely, that of the calculus. Here, the rules, all of them, were laid out in advance. You didn't have to "believe" anything (like the existence of arbitrarily small numbers that were different from zero (in other words, infinitesimals)). I was struck by the fundamental cleanness and *decency* of logical rigor. It would still be a while before I realized that all mathematics is based on the same rigor, but I knew that what I had learned was closely related to mathematics.

I went around telling members of the seminar, "Hey, this is honest mathematics!", thinking, of course, of my struggles with the infinitesimal at RPI.

So my return to mathematics began with formal logic.

A Beautiful Blonde

At one point Dr. Riskin had decided that maybe, after so many years of individual therapy, I would make more rapid progress if I got into group therapy, and so, around the mid-sixties, I joined a woman therapist's group which met weekly in a large room near the therapists' offices on Welch Road on the Stanford campus. I can only remember a few members: an obnoxious guy who managed an inherited stock portfolio, spending his days in a brokerage office in Palo Alto; a young woman from Tennessee I think, skinny, distraught, who had a child, no job, and problems so profound that I don't think we ever really found out what they were. And then there was a blonde named Barbara Rosenauer. Nowadays, I suppose we would only rank her as very attractive, but to me, then, she was gorgeous. She always wore fluffy dresses, white and pink, and it seemed her only real business in life was to look feminine and of the upper class. Naturally, I had to see if I could seduce her, so I began sending her eye messages, and voice messages (in the metaharmonic register) and body language messages, during the therapy sessions. I made sure that, somehow, points I made, matters I brought up, always had a kind, considerate, thoughtful reference to something she had said. I allowed myself the treat of frequent, though brief, looks at those perfect legs revealed below the abundant white ruffles of her dress. I am sure she saw me do it, and I am fairly sure she was impressed at my skill at making it so unobvious. We talked during the breaks. I showed interest in her problems, which I vaguely recall as having been a husband who was always more interested in making money, which he was very good at, than in her, and a childhood under a father who spoiled her, babied her — or maybe it was that he deprived her of things, tyrannized over her. I can't remember. She seemed to be drawn to me, possibly because I seemed intellectual. I don't know if she was Jewish. I assumed her husband was. She had a way of putting everything she said in the form of a question: "...do you think the reason might be...?... do you think it would help if...?..." Nothing was as it was; it was as it might prove to be as a cure for her problems. I was avuncular, fatherly, brotherly.

Once, she had us all over to her house for a group party in one of the wealthier parts of San Carlos or Belmont. I remember the house was near the end of a long street with trees. I think I met her husband, who was young, distracted looking, eager to seem like a decent sort in the face of his wife's new-found constituency.

More eye music in the therapy sessions. Then one day, she and I arrived at the conclusion that it might help both of us on our way to overcoming our problems if we met in my apartment during lunch hour. This was still the drab studio apartment on Woodside Rd. in Palo Alto. All I remember is kissing her and then helping her out of all that fluff and that soon we were in my bed. Certainly I must have had a chance to feel her puffy between-legs lips, stroke the fur. I am certain I did not go down on her. There was only one thought on my mind: *Succeed or else!* This was it: I would never get another chance at a woman this good-looking. What would the group say if they found out I had failed? Men would give their right arms to be in my position. We fumbled, I pressed my soft cock against her soft opening. I tried to will it straight and hard. I concentrated on the depths of her womb, could see the inside of the dark red tunnel. Please God, let me be able to do it. Please God, don't make me go through with this. (Why can't they love you without your having to do this?) I kept kissing her, feeling her perfect breasts to take her mind off of what was not going on down below. That I enjoyed — that was no problem. It was just that final proof that you had to deliver that proved you were a man, it was just that you could briefly lose your mind while inside them — *inside them*: Jesus! What a grotesque stupid, crazy absurdity. If you had asked me, and I could have brought myself to believe I could have trusted you, I would have said that, most of all, I'd like to lie on this bed with her and just kiss her and feel that lovely hair and play with her breasts and talk and do *nothing else*. Maybe jerk off afterward: who cares? I am sure I had broken out in a sweat by now. The poor thing was at a loss what to say or do. I am certain this had never happened to her before. She tried to be helpful, say comforting words, reach down for my thing, not reach down for my thing.

Eventually, we sank back onto the bed and listened to me say I'm sorry. She continued to be at a loss: she reminded me of the wife whose engineer husband has just called her down to the basement to see his marvelous new invention work, and then see it not work, and see her husband's frustrations, and she having not the slightest idea what buttons to press, what knobs to adjust. Poor wife.

A Prostitute

"Confront your anxieties", Dr. Riskin would say when it was clear that I was getting nowhere again. And certainly the chief among my anxieties was represented by my impotence. Eventually my desperation reached a point where I decided that I would find a prostitute. This decision had nothing to do with sexual frustration. I had always been able to take care of that. It had to do with the hope that, at least with a prostitute, I wouldn't have to worry about succeeding.

My first attempt was in Oakland. I can no longer remember how I heard of a street and an address where prostitutes supposedly were. I remember only a lake or waterfront, a steep hill leading down to water, a few trees, shabby buildings, a sailor-like atmosphere. I went up the front steps of one of the buildings; a guy was sitting behind a counter. I somehow found the courage to say something like, "I heard you could meet women here". I don't remember his reply, or even if he made one. I went up the stairs to the second floor, found myself in a dark, crooked hall, with dim yellow-orange lights. I was barely able to keep putting one foot in front of the other, so great was my fear and anxiety. I couldn't bring myself to start knocking on doors. I left with nothing accomplished.

I had heard about the Tenderloin District in San Francisco and from someone now long forgotten had picked up the name of a bar where prostitutes supposedly hung out. So I took a shower, put on clean underwear, pants, and sports jacket, and drove to the city one Friday or Saturday eve-

ning. I found the bar, climbed on a stool at one end, ordered a drink, and began looking around while trying to appear not be looking around.

A rather motherly-looking woman on my right (probably in her early forties) appeared to be enjoying her drink in the manner of one who is trying to appear not to be doing anything but enjoying her drink. She surely felt my eyes on her, but she didn't look at me, content, apparently, to be sized up by a young man. Eventually, I found the courage to offer to buy her a drink. She accepted, and we got to talking. Her name was Mandy or something like that. Although all I wanted to do was get out of there and go somewhere and read, with heart pounding I somehow found the words to ask... whatever you ask in the circumstances. She seemed perfectly willing, gathered her things, and we left. We crossed the street, I feeling as though I were on the way to my execution. She led the away around the corner on the other side, down half a block, then up a flight of stairs to a dark, creaking hallway. She got out a key, opened the door of a musty, 19th-century room, turned on the light. I think in England it would have been called a "bed-sitter". Most of the place was taken up by a large bed. On the right, as you entered, was a chest of drawers. On the left, a low sink. Straight ahead, a window with curtains, the shade pulled down.

She indicated that I would have to give her the money first, which I did. She put it on the dresser. In memory the amount may have been something like $20 or $30. Then she made me wash my hands and then my cock, she observing to make sure I did it right.

I asked her how much time I had. She said 15 minutes. She undressed down to her panties and bra, told me to lie down on the bed, and then she lay down at my side, ready for business. I told her that sometimes I had a difficult time getting it up. She reached foward, felt my cock, began to stroke it. Nothing. She was neither indifferent, nor concerned. I was petrified with fear (*this was my last chance*!). I asked if she ever had a man who was unable to get an erection. She said yes, but mostly they were old men. I ran my hand over her body, her white panties still on. I told her how attractive she was. And so we lay there, I saying whatever I could think of that might get me hard. But it was no use, so we got up and dressed. She discreetly took the money from the dresser, put it into her purse. She told me not to feel bad. We stepped into the hall, she locked the door, and we made our way back down the creaky stairs.

Sailplane Days

"...however high one flies, one is prevented to some extent from enjoying the silence of space by the overpowering roar of [an] engine!" — Proust, Marcel, *The Captive*, vol. 5 of *Remembrance of Things Past*, Modern Library, N.Y., 1956, p. 214.

In the mid-sixties, in my search for something that would save me, I began recalling that my father always used to say, when we talked about airplanes and flying, "The best pilots are the sailplane pilots." Somehow or other I found out about Sky Sailing Airport in Fremont, across the Bay, and one weekend day went over to investigate. I think I took a demonstration ride in one of their three-seaters — a Schweizer Model 2-32: a long, sleek ship with a bubble canopy, so that, although you were traveling through the air at some 60 mph, you felt as though your head was sticking up into completely still air. The idea of flying by your wits among puffy white clouds had the same metaphysical excitement as flying and parachuting had had in my childhood. I decided I would get my glider license. I felt my father would have been proud of me.

Learning to Fly

Sky Sailing was owned and operated by Les Arnold, a husky, serious, middle-aged guy with black hair who looked like one of those old-time pilots from the thirties you see in old photographs. The airport was located off the Nimitz Freeway (Route 17, now Route 880) near the General Motors Plant in Fremont and right next to the Fremont drag strip. The airport, too, was like something left over from the thirties: you reached it by taking the Durham Road exit from 17, then turning left onto a little asphalt road which then turned right past one end of the drag strip, then became a half dirt, half asphalt road, full of potholes. On hot days, you could smell the asphalt as you drove in, and the exhaust from the roaring dragster engines.

There was a little office at the far corner of the low hangar, and beyond it, a low, pointed-roof aluminum shed in which Les kept his Hummingbird, which was a glider with a fold-away engine, so that you could fly it into the air without it having to be towed by another plane and then, once you found some rising air, you could fold the engine back down into the fuselage until you needed it again. Neat!

The runway was a single asphalt strip just long enough to allow a single-engine plane to take off. There was grass on either side, where various kinds of planes were parked, tethered to stakes in the ground. The runway was oriented northwest-southeast. A few yards from the downwind end was a wire fence, with a meadow beyond; a few yards from the upwind end was a stone wall, with a plowed field beyond. It was, in essence, a little country airport in the middle of the suburban sprawl.

I had a good instructor, Robert H. Fisher he signs himself in my log, a quiet, patient man probably in his late thirties. I wondered how he was able to live on what must have been very low pay, since I'm sure Les couldn't afford to pay much. (A price list from 1984, 20 years after I started taking lessons, lists instruction rates at $24 an hour.) Did he have a little house somewhere in Fremont, with an overworked wife, two out-of-control kids, constant money worries, she nagging him to find a job that would enable them to live decently, and to replace the threadbare windbreaker he insisted on wearing, he replying, by his actions if not his words, that he was unable to give up what he was best at?

We flew in two-seat trainers, Schweizer 2-33s, which had a glide ratio of only about 14-to-1, but were sturdy and reliable. (14-to-1 meant that, in still air, the plane flew forward 14 feet for every foot it descended.) The wing was above the fuselage, with struts supporting it like on the old Piper Cubs. Thus, it was easy to see the earth below you just by looking out of the window, unlike in planes that had the wing below the fuselage. Strangely enough, I don't remember the exact colors of the planes — cream underneath, brick red on top? I am not sure. They had blimp-like noses and were definitely not much to look at. All the planes available for rent were Schweizers. They were made in Elmira, New York, a well-known soaring center in the East. They may not have looked elegant (except for the Model 2-32), but they were sturdy, reliable ships, they recovered easily from stalls, and required very little effort to fly on the straight and level, or to keep inside a thermal. I never heard of an accident occurring because of a mechanical fault in any of these planes. The 2-32 I have described. The 1-26 was a blue-and-white or brown-and-white single-seater that you rented after you had earned your license.

One of the first things they taught beginning pilots was that, before flying an airplane, you always checked it out ("did the preflight"). This meant slowly walking around it, checking that all the nuts were secure — the bolts had cotter pins to prevent the nuts from unscrewing, but still you were supposed to visually check them all. You also checked the fabric covering and moved the ailerons up and down by hand, and the rudder from side to side. You looked at the underside

of the wings to be sure there were no rips in the fabric. (All this while your heart was thumping like mad with impatience to be up in the air.)

Then the student climbed into the plane, which was leaning to the side on a little wheel at the end of one wing tip. These planes had only a single wheel underneath the fuselage, as opposed to the two in the old Piper Cubs, or the three on the new Cessnas. This single wheel was located directly under the pilot's seat. As long as the plane was moving fast enough (say 20 or 30 miles an hour) over the ground, you could use the controls to keep the wings horizontal — in essence, fly it level as it rolled along. When the air speed got sufficiently low, however, then the plane tipped to one or the other wing tip. On windy days, we sometimes were able to "fly" the plane while remaining on the ground! The plane, as always, was tethered to the ground by a rope from the nose: the lineman, that is, the airport employee who lifted up the wingtip that was on the ground and raised it so the wings were level prior to takeoff, would raise the wing and then, in the wind, you had sufficient airflow over the exterior surfaces so that, with ailerons and rudders, you could keep the wings level with no one holding them.

So, when the preflight was completed and your instructor was ready, you opened the little metal door on the side of the ship ("ship" was the respectful term, the one that serious pilots and lovers of aviation used: "plane" was what the public and beginning pilots and weekend renters used), climbed into the front seat of the metal and canvas box which the plane was, and buckled the wide seat belt and shoulder strap around you. Now, leaning at an angle because the plane was still at an angle with one wingtip resting on the ground, you moved the stick back and forth and looked out the window to see that the ailerons moved in response. Then you waggled the rudder pedals. Eventually, the instructor climbed into the seat behind you and put on his seat belt with its shoulder strap. He might say a few words about what you were going to work on that day. Then the two of you waited for a tow plane to come back from towing another plane into the air. Sooner or later one arrived, rolling along from behind on your left, having just landed, the tow rope dragging behind it, the ring on the end dancing and jingling over the asphalt runway. The tow plane pulled up ahead on the runway and stopped. The line man ran forward, grabbed the end of the rope, came running back, and shouted "Pull!", at which point you pulled back on the red ball mounted in the center of the control panel. This opened the hook in the nose of the plane, so that the lineman could hook on the ring. Then he gave another command, you released the knob, and he took a few steps backward, pulling on the rope to be sure it was secure. He then walked around to the wingtip on your right, lifted it up, and looked to see if any planes were landing. You shouted "Clear?" and, if there were no planes, he shouted back, "Clear!" You then pressed your feet alternately on the rudder pedals, so that the rudder wagged from side to side. This was the signal to the tow plane pilot that you were ready to go. He saw it through a rear-view mirror in his cockpit, the top of the cockpit being clear plastic or glass. He started the tow plane moving forward slowly until the tow rope was taut. Then he turned on the power, and you slowly began moving forward, the nose skid at first scraping over the dirt at the side of the field, and then over the asphalt, until you had enough air speed to lift the nose up. Now you were bouncing along on your single wheel. The takeoff had to be accomplished in only half the length of the runway, since you had started at the middle. However, the flying speed of the 2-33 was only about 40 mph, so that you were very quickly airborne. The tow plane took a few seconds longer, but soon it too was off the ground, and a few seconds later the end of the runway was passing beneath you, then the little dirt patch beyond, and the grass, then the stone wall, then the plowed field. If it was spring, you could smell the freshly plowed earth. The tow rope was now stretched taut between the nose of the 2-33 and the tail of the tow plane. Now the tow plane started turning slowly to the

right toward Mission Peak. You kept the 2-33 a little higher than the tow plane, so the pilot could see you through this rear-view mirror.

Below, sounding as though it were only a few feet away, came the snarling, blasting roar of the dragsters at the Fremont Dragstrip — a constant revving of engines it seemed, an endless getting ready. Then the Nimitz Freeway passed below you, the concrete funnels of the General Motors plant off to the right. Now, at an altitude close to 1000 feet, you were over the suburban patchwork of Fremont, and a few minutes later you reached the farmers' fields below Mission Peak.

On this initial part of the flight, the instructor would have you practice a few maneuvers aimed at giving you skills you might need in case of sudden turbulence during the tow. He might have you do a square around the tow plane: up, then to the left, then down below the tow plane, then across the prop wash (the turbulence from the propellor) to the right side, then up to the right corner, then left back to where you started. Then he might have you practice "slack rope", which was aimed at teaching you how to recover if the tow rope suddenly went slack, as, for example, could occur in heavy turbulence. The maneuver was simple: simply dive down to increase the slack, then decrease your speed slightly and at the same time turn so that, at the exact moment when the rope became taut again, you were in precisely your proper position directly behind, and slightly above, the tow plane. It was a surprisingly difficult maneuver to perform. Either the rope became taut when you were in the wrong position, or it was slack when you were in the right position. Furthermore, the whole maneuver had to be single and continuous, and not with constant adjusting and trial and error. Another maneuver was flying below the tow plane, keeping your plane in position even though now the tow plane pilot couldn't see you.

The tow plane just kept going up until you released the tow rope. Afterward, you paid for the height you had been towed to, your word being taken by whoever was behind the counter. The 1984 price lists $13.50 for a tow to 2000 feet, $16.50 for 3000 feet. So you just let the tow plane keep climbing until you felt your plane start to shake and jump a little in an updraft. If you didn't find one, you could steer the tow plane to an area you felt might have an updraft. You did this by moving out to the left side of the tow plane if you wanted to turn right, out on the right side to turn left. Usually, you found an updraft around 2500 or 3000 feet. You then released the tow rope by pulling back on the red ball in the center of the instrument panel. There was a sound like a pistol shot, and the tow rope suddenly darted forward, wiggling through the air. The tow plane dove down toward the right while your plane seemed to rise mushily into the soft air, which was simply the effect of no longer being towed at tow plane speed.

You kept your eye on two instruments on the front panel: the altimeter, which showed your current altitude, and the variometer, which showed how fast you were rising or falling. You soon adopted the pilot's affectation — I don't think it was more than that — of tapping the altimeter and variometer to make sure the reading was correct — that the needle wasn't still stuck at a previous reading. This habit was, I am sure, a holdover from the early days of flying, when instruments were much cruder.

There was also a compass, which we never used, and, on some of the trainers, I seem to recall a turn-and-bank indicator, but this was unnecessary, since the same purpose was served by the string attached to the canopy in front of you. This string, called a "yaw string", was some six or eight inches long and was a simple but effective means of indicating whether you were flying straight ahead through the air. You were supposed to fly in such a way that the string always pointed straight back at you, because this meant you were flying at maximum efficiency. If the string was off at an angle, then you were, in effect, skidding sideways through the air, resulting in

the plane achieving less lift than it otherwise would. The situation is similar to that of car skidding down a road. So you had to keep an eye on the string most of the time, and coordinate the movement of stick and rudder pedals to keep it pointing straight back at you.

It is not true, as some people imagine, that, because a sailplane has no engine, it therefore flies silently. What you hear is the steady hiss of air sweeping over the fuselage. It always sounded to me like very fine sand.

The instructor would put you through a series of standard maneuvers. He would tell you to make turns, then perhaps do a stall, which meant that, beginning by flying straight and level — well, not actually "level" since, unless there was an updraft, you were always descending — you pulled slowly back on the stick, watched the nose rise up above the horizon, felt the great ship slow down, doing its best to do your bidding, to go up when there was no power to enable it to do so except what was left from the forward momentum gravity had given it, up, up, slower and slower. Then, when it had no more speed, it would suddenly give up the ghost and flop downward, tossing your head forward toward the front of the canopy. Now you suddenly had all the speed that a dive granted you, and to get back to normal all you had to do was gently work the stick forward and back not once but twice — to this day I don't understand why the operation had to be done twice — and soon you were back the way you had been.

The instructor would have you practice turns, to the right, to the left, always looking out the window on the side you planned to turn toward, just as you did in a car, and then gently turning, keeping the nose in the same position relative to the horizon as you made the world go round, all the while trying to keep the string pointing back at you. Once in a while he had you go into a spin, so that you could learn how to recover from them.

Throughout these maneuvers, even as I was concentrating on what I was supposed to be doing, I couldn't get over the idea that just this arrangement of sheet metal and plastic and nuts and bolts gave you *flight*, gave you command of the air, whereas some other arrangement of the *same* materials — one wing attached to the tail, the canopy underneath, the fuselage shaped like a box — would not get off the ground. I often wished I could open the window and stick my hand out, feel the rush of the cold, fresh air which was in fact holding us up, the air having accepted the bargain that if we agreed to ride in metal and plastic devices like the one we were in, the air would agree to allow us to go up in it. But opening the window was not allowed.

We were told the rules about the minimum altitude we were to allow ourselves to descend to before turning back to the airport, namely, 1800 feet if you were in front of Mission Peak ridge. At that point, like it or not, and regardless of how optimistic you were about finding lift in the vicinity, you were supposed to head for home. The minimum altitude to begin a landing was 800 feet.

Part of every student's training was, of course, training in soaring. To the layman, the term "sailplane" implies that the plane is somehow held aloft by the wind, or blown forward by the wind, like a sailboat, but this is erroneous. There is no soaring if the air in which the plane is flying isn't rising. Wind — if it is horizontally moving air — is of no use in gaining altitude. A sailplane is always a glider, meaning, that it is always descending, because of the force of gravity, relative to the air in which it flies. It descends at an acute angle to the ground rather than vertically because the air flowing over its wings and providing the lift determines the rate and pitch of descent. The more the lift, the slower its descent. What makes soaring possible — in other words, what makes it possible for the sailplane to stay at the same altitude or to gain altitude — is that the surrounding air may be *rising*. Sailplane pilots often refer to this as "lift" but strictly speaking that is a misnomer. "Lift" is what air flowing over the wings provides. The less seldom used term

"updraft" is more accurate. If the surrounding air is rising at a faster rate than the sailplane is descending, then the sailplane rises relative to the ground. So the goal of a sailplane pilot is always to find rising air.

One source of rising air is a thermal, which simply means air that is rising because it is warmer than the surrounding air. The phenomenon occurs frequently over freshly plowed fields in spring, when the sun warms the soil and causes the moisture-laden air to rise. A misconception about thermals is that they are somehow like invisible tornados. The source of the misconception is understandable, since sailplanes (and birds) soaring in a thermal go around and around in a spiral pattern, like the air in a tornado. But the thermal itself is simply a funnel-shaped stream of rising air, with no particular circular motion, and the reason for the spiral pattern that sailplanes and birds fly is simply to enable them to stay inside the stream of rising air.[1]

And so, in between the maneuvers, the instructor would sometimes say, perhaps even taking over the controls, "Feels like we might have some lift there. Let's see if we can..." and dutifully looking over his shoulder first to check for other planes, he would turn the plane and feel his way back to the bumps, then hand control back to the student so that he could practice trying to stay in the updraft, which, of course, was invisible. (I heard later that someone was investigating the possibility of designing infrared goggles that would enable you to see the updrafts by seeing the dust particles in them. I never heard anything more about this proposed invention, nor have I ever attempted to find out if in principle it would work.)

I remember a spring day when it seemed there were updrafts everywhere. The sun was shining, and the sky was blue and filled with an army of cumulus all up and down the valley. We got into a thermal below an enormous cumulus cloud. Other ships were going around above and below us. My instructor let me do the flying, and with the fuselage booming in the onslaught of the updraft, we went around and around, all the while rising at well over 500 feet a minute. We were rapidly approaching the base of the cloud. Other planes, including another trainer, were in virtually our same circle. The racket of the air made us have to shout in order to make ourselves heard.

Now one of the basic rules of flying sailplanes was: *No flying into the base of clouds!* The reason was that, as hard experience had shown in the early days of flying, if you lost sight of the horizon, or at least of the ground directly below you, and didn't have special instruments to give your orientation, you soon didn't know which way was up, or at what angle to the ground you were flying, which meant that you could easily go into a dive or spin that could, at the very least, do damage to the plane. Orientation relative to the ground was not something instinctive, despite what we might think. You couldn't just "remember" which way was up! So, no flying in clouds.

But what if the base of the cloud was concave! What if it was a huge dome going up *inside* the cloud? Because that is where we found ourselves. The updraft was so strong that it actually had hollowed out a vast gray-white cavern in the base of the cloud. As we went roaring around and around, I kept thinking of lines from Coleridge's poem:

"In Xanadu did Kubla Khan
A stately pleasure-dome decree...

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1. On a few occasions, on warm, sunny days, I saw what can be described as miniature tornadoes on the tarmac and dirt near the main hangar. They are actually called "dust devils", and were only a few yards high. They busily churned the dust and occasional scrap of paper as they moved along. Writing this now, I can't understand why I didn't attempt to walk into them to see what would happen.

It was a miracle of rare device,
A sunny pleasure dome with caves of ice!...
...that dome in air..."

I kept shouting, "This is amazing! Incredible! Everybody's up here! This is great!" I caught a glimpse of the instructor's face and could see that he, too, was caught up in the excitement. We in our snug metal and fabric box were riding on top of the world.

But we couldn't stay up there forever, and so eventually, in the nicest possible way, he had to suggest that we should start down. I pushed the stick forward to start the descent. Nothing happened. The updraft was too strong. I pushed the stick farther forward. We stayed exactly where we were. "It won't go down!" I shouted to him. "You'll have to use dive brakes!" he shouted back. So I grabbed the dive-brake handle with my left hand and began pulling it back. The rumble and vibration produced by the the air trying to get around those vertical tabs on the wings now were added to the thunder of the air. Finally, with the dive brakes fully extended, and the nose almost vertical (or so it seemed) we slowly began to descend. (If that hadn't worked, we could have tried side-slipping out of the cloud, and if that didn't work, we would have been forced to break the rule and escape through the side of the cloud.)

We sank down into the sunlight and finally made our way out into calmer air. It had been a unique experience for me: however briefly, *not to have been able to get back down* to the ground.

A few times, I had Les Arnold himself as instructor, especially when I was getting ready to solo. He was, without question, the best pilot I ever flew with, truly a master of the art of flying an aircraft. When, for some reason, he took over the controls, I noticed that the stick never moved. "He does it all by pressure", the pilots on the ground would tell me when I marveled at this. A student, and even a pilot with a certain amount of experience, moved the stick forward, back, right and left, to control the plane. The movement of the stick was obvious. But in Les's case, all you saw was a motionless stick, and yet the plane turned, gracefully, smoothly, to the right or left, the string always pointing straight back at you. On the one or two occasions when he felt he should show me how to handle the complete landing process, I noticed that the degree of dive brake he set on the downwind leg remained unchanged all the way till the plane came to a stop. Utterly remarkable. I, and I suspect the vast majority of pilots who rented his planes, changed the setting continually as we descended, the interior monologue going something like: "... too much, ease up (push the handle forward), we're dropping too fast!...wait! we're going to overshoot, yank 'em back on! (pull the handle back)... we're going to undershoot! let up, let up a little! (push the handle forward)..." But his interior monologue, I imagined, consisted of a single sentence at the start of his descent, from 800 feet, on the downwind leg: "OK, well, let's see, I think if we put the dive brake right about...in this position, that should do it." Thereafter, silence, and a perfect landing without having to move the brake at all.

The last exercise before you soloed was designed to see if you could recover if the tow rope happened to break a few seconds after takeoff. You were given warning that, on one of the next few takeoffs, you would be subjected to this test, so you would be on the alert. (I remember the instructor saying a few words that I couldn't make out to the line man on the flight before my test occurred.) Then, as the tow plane pulled you into the air above the stone wall and the plowed field, suddenly the familiar pistol shot would snap in your ears, and the instructor would say , "Broken rope. It's yours," meaning that he had taken his hands and feet off the controls. You remembered your lessons, though. You looked around quickly to be sure there were no other aircraft in the vicinity, then turned sharply, put on dive brakes, and descended as rapidly as possible

because now the wind you had been flying *into* was pushing you over the ground: your speed relative to the ground was flying speed (about 50 miles per hour) *plus* the wind speed. The runway was short. Get down! Nope, still too high. So a maneuver was required that you had practiced a few times and was called "side-slipping". It involved crossing the controls, that is, putting the stick to one side while pressing down on the opposite rudder pedal, so that, in effect, you simultaneously tried to turn in one direction with the stick and in the opposite direction with the rudder pedals. As result, the plane banked sharply without actually turning, causing a rapid descent until you uncrossed the controls and straightened out. The tow plane pilots did this routinely when they returned to the airport in order to descend rapidly to the runway. So now you side-slipped down to what seemed like only a few feet from the surface of the runway, and then, with dive brakes, you managed to get the wheel on the asphalt, and haul back on the wheel brake before the wind pushed you into the stone wall at the other end of the airport. Fortunately, we had to do the broken tow rope maneuver only once.

Along with all this flying, there was also written material to master and a written exam to pass.

I loved the rationality of it all; the idea of a set of rules that had been evolved from years of actual experience, just as the rules governing the operation of ships had been. There were procedures which, if you followed them, would reduce to a minimum your chances of getting into trouble. I felt honored to be taught these venerable rules and then to be allowed to follow them.

Soloing

And then, one or two flights after the broken tow rope exercise, as we came to a halt after a training flight, the instructor (Bob Fisher) climbed out of the cockpit and said, almost casually, "OK, I think you're ready to solo." I: "Really?" He: "Take it up and just do a circuit" (that meant simply go up, release the tow rope, and land again). And so, the tow rope was reattached underneath the nose and he gave a wave to the tow plane pilot. I sat up straight, adjusted my safety belt, waggled the ailerons, looked to left and right, hollered, "Clear?" to the line man and heard him holler back "Clear!" I waggled the rudder, heard the tow plane engine rev up, heard the nose of my plane scrape along the asphalt, felt it lift up, and then we were rolling and bouncing down the runway until the rumble of the wheel underneath had stopped, the plane was in the air, and for the first time in my life, I was flying an airplane all by myself.

The circuit was easy, of course, although I was scrupulously careful to start the landing procedure at precisely 800 feet. Then the right turn at the end of the downwind leg, and right again, careful over the fence, down, down, watch the air speed, keep it at 50 miles per hour, then gently onto the runway surface with the single wheel, roll forward, then onto the grass, full brake, until the nose drops to the ground and the plane tips onto one wing tip.

The instructor came over, congratulated me, we shook hands. I asked him if this meant I could now take up one of the 1-26s. He said, sure! So I went into the office, told them I had soloed, and asked for permission to rent one of the planes. I don't remember if I had to wait for one or not, but soon I was going through the pre-flight check, as carefully and conscientiously as only a new pilot can do. The plane was blue, as I remember. The bubble canopy opened via hinges on one side. The top of the canopy was only about three feet above the ground, so, by any reckoning, this was a "small" plane. A tow plane returned. I climbed inside the 1-26, carefully buckled the wide safety strap around me, pulled the canopy over and down, clicked the latch, and then, from inside this new metal and clear plastic helmet, watched the leisurely line man retrieve the tow ring, hook it underneath, give it a couple of tugs, then take his place at the end of the right

wing, his manner all rather bored and matter-of-fact. I: "Clear?" He, dutifully looking back over his shoulder. "Clear!" I wagged the rudder, the tow plane engine revved up, the tow rope went taut, soon the nose was scraping along the ground, then came up, and now the plane was bouncing along on its center wheel, then the tow plane lifted above the runway, I with it, and up we went.

I did nothing on that first flight that I hadn't done many times before in the trainer. Naturally, the smaller plane was much more maneuverable, more sprightly. I did a few stalls, turned left and right — there was no lift that day — and then carefully returned to the airport.

The instructor sauntered over as I was climbing out of the cockpit. Again we shook hands. A great moment, even in this day and age! I was on the verge of tears. This noble thing!

Early Flights

The fact that I was now allowed to fly a plane alone whenever I wanted did not contribute to my productivity at Beckman or, later, at Signetics or Hewlett-Packard. Waiting for a good soaring day became like waiting for the mailman when I was a child. Year round, but especially in fall, winter, and spring, I now had something else to think about on the job, namely, was this a good sailplaning day? The weather report in the *San Francisco Chronicle* acquired a new character, became something filled with potential excitement, the symbol for scattered showers carried the promise of a good day; "Northwest Winds at 20 miles per hour" produced heart-thumping excitement. On such days, weekday or weekend, I would call the airport, ask them how conditions were, how long of a wait there was for planes. We weren't allowed to reserve a plane, and so a status of no wait reported on the phone could become an hour's wait once you were there. A report that the conditions were good meant "There is still hope for you!" And on days when everything went well, I drove home with a feeling as though the cowboy suit in my childhood had arrived and everything for a few hours would be all right.

Thermal Soaring

The best season for thermal soaring was spring, because then the sun warmed the moist, dark, plowed fields, and sent up big, invisible bubbles of air, each culminating, at 2500 or 3000 feet or so, in a big, white, juicy cumulus cloud, frosty blue-gray and, as I knew from experience, *cold* underneath. There would be lines of these clouds stretching off into the distance — "cloud streets" as they were known, and some sailplane distance records were set in the Southwest by pilots simply flying down one of these streets, thermaling to the base of one cloud, then diving quickly to the thermal under the next cloud, riding it up, then diving to the next thermal. (Something like a dive was necessary because there was often a downdraft between successive thermals, and you wanted to get through it as fast as possible.) We towed up to about 2000 feet, sometimes only 1800, and the air was already bouncing us around. Release the tow rope — *Bang!* — and you could hear the sound of the updrafts against the fuselage. Hard right turn! You looked down the right wing and saw the patchwork quilt of farmers' fields. The variometer needle danced at 500, 700 feet per minute up. Stay in this one! You kept the turn as tight as you could, because the narrow radius kept you in the center of the thermal where the updraft was strongest. Around and around, thumping, bumping, the little plane rose in the torrent of rising air, the moist, fresh, white, tight cloud above.

Sometimes, on an especially good day, you would be circling in a thermal, and look down your near-vertical wing and see not only other planes, but also seagulls, hawks, who knows what other kind of bird? — as though everything that had any chance whatever of flying had been heaved into the widening gyre. You had no real sense of the distance to the ground, however. All

you knew was that that thin line was a road, those little white squares were houses, the patchwork of green was farmers' fields, meadows, empty lots.

Sometimes the updrafts extended to the sides of the clouds. Or, to put it more correctly, sometimes the cloud did not form over the entire breadth of the updraft. This meant that it was possible to soar *around the outside* of the cloud, and I remember one beautiful day in which that idea first occurred to me. I made it up to the base of the cloud, then flew out to the edge, and found there was still enough lift to carry me higher. And so, with one wing practically sticking into the ragged white whisps around this beautiful blue-white snow structure with the all-new, fresh, blue sky above, the sun beaming down, I slowly made my way around the cloud, thinking, as in those days at RPI, Oh, God, if only I could get out and walk!

As a result of my excitement in describing this new sport to my employees at Beckman, Cor became intrigued, asked if I would take him up. I was delighted. We went up in a 2-32, he sitting in the back. It happened to be a good thermal day, and as soon as we were at 2000 feet I released the tow rope (warning him in advance what was about to happen, so the pistol shot sound wouldn't make him nervous) and I immediately put the plane into a steep bank to stay in the thermal. I: "Hey, this is fantastic!" Around and around we went, a few other planes down below us. No sound from the back seat. I turned around, and saw for the first time, a face that could fairly be described as being green, or at least yellowish-green. I: "Are you all right?" He, with his Dutch accent, words to the effect: "Well, maybe we could stop going around for a little while." I immediately straightened out and as calmly as possible said that, if worse came to worst, there were plastic bags in the sleeve on the back seat. I didn't blame him, since I knew from my own experience that there is a world of difference between doing reckless things when you are in charge, and when you are not.

Even though summer was the worst time for soaring, once in a while you could even manage to find a few thermals then. These were days when the air was like gray paste. But any good sailplane pilot always respected the challenge of staying up on weak days. "Nothing much", the guys in the office would say when you walked in with the yearning, hopeful expression on your face. "Dead air today."

But if the day was sufficiently hot, the roof of a sheet metal shed near the General Motors plant got so hot that it sent a shimmering tower of hot air rising into the sky. We would get into this updraft and sometimes, if the tower of hot air had a large-enough diameter, we could maintain altitude by staying within it. But as often as not, it was too narrow, and the angle at which we had to turn to stay in it was not enough to give the plane enough lift from its wings. But still, it was a great test of thermalling ability to soar above that shed. If we became really desperate — and I tried this only once or twice — we would attempt to soar in the hot air (and pollutants) rising from one of the smokestacks at the GM plant itself. This very quickly revealed itself not to be a good idea, since you were soon choking on the soot and who knows what else that filled the cockpit.

Ridge Soaring

Probably the most frequent kind of soaring available at Sky Sailing was soaring along the Mission Peak ridge. In this case, you needed wind blowing from the west or, less desirably, from the northwest, so that the air could flow up the sides of the ridge and provide an updraft. This type of soaring was best in fall and winter. Altitudes attainable were seldom over 3000 feet, and often less. We simply flew back and forth over the grass-covered ridge, and sometimes farther

south, in the updraft produced by the steeply rising side of the Peak. Below was a little farm house, and I often wondered what it was like for the family to live there under the soft hiss of metal ships going back and forth overhead.

On a good day, when you released the tow rope half a mile or so before the ridge, you would get a sudden kick from beneath the fuselage as you flew into the updraft. Then, up you went, bouncing in the rough air, the grass field noticeably falling away as you gained altitude. Then, a minute or so later, when the updraft began to weaken, you turned out from the ridge, made a 180-degree turn, and started back again, feeling your way through the rising air.

Some of the best ridge soaring days were cloudy, the base of the clouds as low as 3000 feet, which meant that you could soar right up into them. However, as I explained earlier, we weren't supposed to fly *into* clouds, although I made the experiment a couple of times, the first time believing, that, well, maybe all those others, who weren't as intellectual as I was, couldn't remember which way was up, but I would be able to: it just took a little concentration. A few seconds after I was in the gray, blowing mist of the cloud, I realized that all the brains in the world weren't going to do me any good here. Was I flying straight and level, was I banking to the right or the left? The only thing I could be certain of was that I was not diving. And so I pushed the stick forward, and put the plane into a deliberate dive in order to get out of the cloud before I got into real trouble.

There was a second reason we weren't supposed to fly in the clouds above the Ridge, and that was that one of the aircraft approach paths to Moffet Field, in Sunnyvale, was above the Ridge. The big Navy sub-chasers returning from their day's mission flew through the upper regions of our air space, and if we were in a cloud at the time one came through, there could easily be a collision. Here, too, I was skeptical. We seldom saw the planes on cloudless days, so why should we believe they would come near on cloudy ones? And so one day — I remember it was snowing above the ridge, a rare phenomenon — when I was making my second or third attempt to prove the professionals wrong, and I could still see the Ridge through the wisps of cloud below, I suddenly heard a sound that at first I took to be a stronger updraft than usual flowing over the fuselage. But the sound got louder, and I realized it was coming from an engine. Well, probably far above, nothing to worry about. But it got louder, and louder, and soon it dawned on me that I wouldn't get so much as half a second's opportunity to get out of the way before the plane hit me: I would see, suddenly looming through the cloud mist and only a few feet from my little 1-26, the front edge of large wing, and a spinning propeller, and that would be the end. So I got out of there very quickly, and never flew in clouds again. ("There are old pilots, and there are bold pilots, but there are no old, bold pilots" went the saying.)

On some fall days, almost always gray and with intermittent light rain, there would be a wind from the southwest, meaning that we could soar over the barren, sloping south end of the Mission Peak ridge. Since the slope was much milder than that at the front of Mission Peak, the wind had to be correspondingly stronger to give us sufficient updraft. On these days, the wind seemed warmer, more deeply depressing. And yet it seemed amazing that we, in our tin boxes, could pass so low — a few hundred feet, it seemed — over the brown grass and wet stone walls of the fields below and still not crash. Sometimes we could get the nose down at just the right angle so that our forward air speed exactly equalled the speed of the wind coming up the ridge, and we could hover motionless over one part of the field below. Defying gravity — the dream of mankind!

Wave Soaring

In ridge soaring, you rode the upward current of air as it blew over Mission Peak from the airport side. Wave soaring was the just the opposite: here, you rode the upward current of air produced by the wind blowing in the opposite direction, that is, from over the *back* of Mission Peak. The air flowed up the mountain behind the Peak, came over the top, then descended on the front side, and *then*, for reasons I never understood, rose again, and then descended in what engineers would immediately describe as a sine wave. This miracle occurred much more rarely than ridge soaring, and it was far more exciting, because on wave days, as we called them, you could soar many thousands of feet into the blue, which is what the skies always were on these days.

It was on a wave day that I reached the highest altitude I ever attained in a sailplane. More about that below. But when the weather report indicated conditions might be setting up for a wave, it was impossible to concentrate on work at Beckman (or, later, at Hewlett-Packard). I wouldn't hesitate to take time off to go over to the airport, although, of course, I always hoped the waves would be on weekends.

On a wave day, you had to get there early, since they never allowed pilots to reserve a plane over the phone and, of course, every pilot who could possibly make it, would want a plane. And so, with heart pounding, you raced across the Dumbarton Bridge, turned right onto the Nimitz Freeway, traveled the mile or two to Durham Road, then turned off onto the road leading to the airport, bounced over the pot holes, parked, tried not to run into the office, but, as soon as you got there, asked if the wave was holding and were there any 1-26s available. A gruff reply from whoever was behind the counter, " — is due in in about fifteen minutes, you can have that one," and he wrote something down.

Oh, the agony of waiting, looking off toward Mission Peak, seeing the specks exploring the blue, thinking of this massive, invisible mountain of moving air up there! Then one of the specks turning toward the airport, hardly moving, it seemed, but growing bigger in the infinite blue, coming closer, then when you could see the canopy, and perhaps even the tiny head inside, it made its turn to the left on the downwind leg, then the right turn beyond the end of the airport for the crosswind leg, then another right turn bringing it in line with the runway, now descending, approaching. Would it make it over the stone wall? Yes, and now it is settling down onto the asphalt strip. It bounces and scrapes to a stop on the grass. You run up. He opens the canopy. Slowly undoes the safety belt. "How was it?" you ask. "Great! You've got to stay far from the ridge, though. Hell of a lot of down any closer." ("Down" was the standard abbreviation of "downdraft".) He climbs out finally, you help him drag the plane forward to the midpoint of the runway. You stand there next to your ship, a peaceful breeze in your face, giving not the slightest suggestion of the vast, orderly torrent just a few miles away. The 1-26 canopy is open on its hinges. Then you see a tow plane heading down, parallel to the airport. "Here he comes," you say, as you climb over the side and settle down into the seat, pulling the straps over your shoulder, buckling the belt. The line man watches patiently, you hear the tires squeak as the tow plane touches down, then the silver sound of the tow ring as it dances along the runway. The line man runs forward to pick up the ring. Brings it back. "OK", he says, and you pull down the canopy. The tow plane is ahead of you on the runway. You shout, from out of your sheet metal chamber, "Clear?" The line man casually looks back up the runway, says, "Clear!" The pedals make their thump, thump on the floor as you wag the rudder, the tow plane engine revs up, and now, with a scrape of the nose, the 1-26 starts to move forward, the line man holding the wing level. You lift off the runway with the tow plane, stay right behind and a little above him as the two of you rise into the blue. No need to steer him on a day like this, he knows where to go.

You stay in precise position, watch the tow rope, try to see the other planes up in the infinite blue. The altimeter reads 2000 feet, 2400, 2500, and then suddenly it feels as though something has gone terribly wrong. Something has given the plane a kick underneath. It is so sudden that your head bangs into the canopy, and now you and the plane are bouncing around, the tow plane doing the same, the two of you lurching, falling, rising, as though you were suddenly on the world's bumpiest road. And yet the air all around is perfectly clear.

This is the rotor, the storm before the calm. If you want to get into a wave you must go through it. It is the turbulence at the bottom of one of the waves. You ride 'em cowboy, hoping that whoever put the plane together remembered to tighten all the nuts that hold the wings on! You are jouncing, bouncing in every direction, the metal creaks, the turbulence thumps against the fuselage, and then, as suddenly as it started, it stops. Everything is as still and smooth as the air in Heaven. You can't believe it. You feel you could get out and walk. You release the tow rope — *Bang!* — the tow plane dives down to the right and races back home to get the next anxiously awaiting customer.

You look at the variometer in the center of the instrument panel and can hardly believe where the needle is. Is it possible? It says you are going up at *1100 feet a minute*! You're on a veritable air elevator. And yet the air is so free of turbulence that if the front panel had a tray, you could put a glass of water on it and not have a drop spilled. The extraordinary rate of climb continues. You are ascending straight up into the bright blue sky. If you watch the ridge below, you can see it slowly dropping away below you. Now you can see the hills behind Mission Peak, a rumpled green carpet, you can see for miles over there. And up you continue on the air elevator, at 1100 feet a minute. You hardly need to touch the controls. You can take your hands off the stick and your feet off the rudder pedals and for a few seconds at least the plane flies by itself. You see a couple of other planes to your right. But everyone is spread out, this isn't like all of you going around and around in a thermal. You can't contain yourself. You shout "*Yahoo!*" as you sit there in your metal box which is suddenly in complete harmony with something so different from itself, namely the thin air.

But, uh-oh, what's this? Now we're only going up at 800 feet per minute. Rate of climb is dropping. Think! We were in a rising wave of air, but we have allowed ourself to be gently pushed back into the less rising part, and if we let this continue, then eventually we will be backing into the descending part of this massive, invisible, air mountain, and then we will be going down as fast as we were going up. So you have to push forward on the stick, increase forward speed so that you move forward into the fastest rising air again.

Twice I took Elliott Boulter, a salesman for a printer in Stanford Industrial Park that we used for high-quality work, up for a ride in the 2-32. He had listened to my rapturous anecdotes and expressed an interest. Now here was perhaps the least likely man to be willing to subject himself to such adventure. Tall, with glasses, bald, he too had a mother problem, though he hadn't advanced to openly expressing his hatred, as I had long ago done. Based on some of the things he said, I imagined a big dining room table with a lace table cloth, in an elegantly decorated dining room, and sitting there with somber faces, he, his wife (who was always sick with one thing or another), and the glowering look of his old mother. I saw the three sitting in silence, eyes lowered in perpetual saying of grace, or prayers that this would end soon, and a maid bringing in soup in a silver tureen. But he always put a brave face on his fate, always seemed ready with the appropriate sympathy for the invalid wife and the demanding mother.

On the first flight we happened to hit one of the great wave days. According to my log, it was on Jan. 7, 1967. I warned him about the rotor, he took the jouncing and shaking without a word, then expressed genuine amazement and pleasure at being in the smooth wave. This time the elevator took us up to the highest altitude I ever achieved in a sailplane, namely, 6,800 feet. Sky Sailing Airport was barely visible, even Mission Peak, and the ridge seemed lost in the rolling folds of earth. The Bay glinted serenely behind us. Another 3,200 feet and we would have been required, under FAA regulations, to wear oxygen masks, which the plane didn't carry.

I let him take over the controls a few times. He was by no means a natural, but he seemed genuinely enthusiastic, excited, by the whole thing. When we got back home, he thanked me warmly. In April, I took him up again, although that time we found no lift. But nevertheless he told me later that had started to take soaring lessons.

Two other kinds of waves deserve mention here. One we called "the Evening Wave" occured in summer around five or six, when the cold, foggy air from the ocean made its way up the valleys leading to the Bay and lifted the lighter warm air of the day. If you got into the right position — which tended to be above the highway that ran east behind the Ridge — and if you had every fiber of your being tuned to the feel of the air around you, while at the same watching every nuance of the variometer needle, then you could keep the plane at the same altitude for fifteen minutes or so. It took a great deal of concentration, because the lift was so weak. But on a rosy evening, with the fog coming up the Bay, it was a special pleasure.

The other kind of wave we called a "Shear Wave", and this one took place in front of the Ridge, sometimes right above the Airport. It occurred when a cold front moved in and raised the warm air of the previous warm front. It presented a more "technical" challenge than any of the other waves, because no one really knew the altitude where the boundary between the new cold air and the old warm air was. In theory, the cold front came in like a kind of wedge of air, and the idea was to position the plane right above the wedge, because the warm air, and hence the plane, would be moving up the wedge. I don't think I ever successfully flew one of these waves — or at least I don't think I could confidently say that the reason for my increases in altitude that day had been due to one of them.

Landing in a Cow Pasture

One side of a wave may have consisted of air that was rising at 1100 feet a minute, but the other side consisted of air that was *descending* at the same rate. If you "fell out of the wave", as the expression had it, you got into this descending air and then had two choices: either fly forward as fast as you could (namely, by putting the nose down to gain speed) or else head back to the airport before you lost too much altitude. Otherwise, you would be forced to land wherever you happened to be when you ran out of altitude.

The last happened to me three times. The first time, at nearly 4000 feet, I noticed the rate of ascent decreasing. I looked for other planes — and, let me repeat that, unlike in thermal soaring, planes in a wave seemed always to be spread out. They weren't dots, exactly, but you had to scan the sky carefully to pick most of them out. I looked for other planes in order to get closer to them and to be sure I was pointed in the same direction they were. But even though I took care of the latter precaution, for some reason the rate of ascent continued to decrease, until it was at zero. Well, that meant I was staying at the same altitude. Things could be worse. And soon they were. Now I was going down at several hundred feet a minute. The question now was: Should I

attempt to dive forward, through the down part of the wave, and try to reach the ascending part again, or should I turn and hightail it for the airport? I made long passes along what I conceived to be the wave, but the variometer kept dropping. Then, I suddenly realized that not only was I not going to reach the front part of the wave again, I was also not going to be able to make it back to the airport. So for the first time in my sailplaning career, I was going to have to land off-field. I was nervous, but not panicked, because there were plenty of fields below. Most of the houses in Fremont were to the north. The words in one of the instruction books went through my mind clearly: "Pick your field..." All right, that one over there looked good. Off to one side cows were grazing, so it must be a meadow. But what about rocks? No way of knowing. Of course I had no prior instruction in landing in this or any other field, and so now I had to go through the reasoning about down-wind leg, cross-wind leg, and approach. I thought of my father's words at the dinner table some 25 years earlier when he said he was confident I would know how to handle myself in a situation of real danger, and now I wanted to prove that he had been right.

Which way was the wind blowing? No idea. Look for smoke from a smokestack, the book said. No smoke from the GM smokestacks. In retrospect, the landing direction I chose was exactly the opposite of the one that reason would have suggested: reason would have suggested landing in an easterly direction because that was the direction the wind was blowing from; I landed in a southwesterly direction.

What to do? Might as well follow the same procedure as at Sky Sailing, and go to the far end of the field, turn around and come back along the left-hand side of the field, turn right until I was lined up with the middle, then turn right again and land. But now, as I was turning into what would have been the cross-wind leg (except, for all I knew, it was the up-wind leg or the down-wind leg), I saw that the approach would take me right over (or under) high-tension wires. There were the towers, big and strong, and there were the lethal strands they supported, each carrying many thousands of volts. The dilemma was this: pull back on the stick to temporarily gain a little altitude, at the cost of a loss in forward speed, and subsequent need to regain that speed by diving, but with that gain in altitude allowing me to make it over the wires, or else jam the stick forward, going into a steep dive, and try to make it *under* the wires. Fully aware that it was entirely possible I was about to die a particularly unpleasant death — how long did it take for several thousand volts to knock you unconscious? — I decided on the first alternative. I kept the speed steady so there was no chance of a stall. The wires came nearer. The plane was clearly descending toward them. A little more speed (which, on the one hand meant I was moving faster over the ground, hence toward the field beyond, but on the other hand meant that I was losing altitude more rapidly). I thought that, if I felt I was getting too close, as a last resort, I would pull back on the stick and hopefully make a little hop that would take me over the wires, after which I could worry about recovering from the near stall, and get back to the business of landing in the field.

As it happened, I watched the wires pass below me with what seemed room to spare. Then on went the dive brakes, producing the familiar rumble of air and vibration in the cockpit, and now, with an inept, half sideslip, I got down to the level of the field. I could see it was full of dirt clods on which grass had started to grow. I was only a few feet above the ground now, and for a moment thought of Neil Armstrong landing on the moon. Hold off, hold off, look for a good spot. Air speed now down to less than 50 mph. Nothing bad could happen at this point. I tried to stay as far as I could from the cows and as close as I could to a fence, so that I could make a quick dash to the road and, I hoped, a ride to a phone, before the cows decided to mosey over and check out the machine that the human had landed in their yard.

The plane came to rest, I climbed out, looked back at the graceful power lines, tried to make out a few lucky specks far above in the pale blue, then galumphed through the dirt clods to the fence, climbed over, I think hitched a ride with some friendly nick-of-time guy in a pickup to a phone booth conveniently placed in the middle of nowhere for downed sailplane pilots, called information, and then Sky Sailing.

They handed the phone to Les Arnold himself. "Les? This is John Franklin. I'm afraid I had to land away from the field. I'm in a cow pasture. The plane is *not* damaged. Let me emphasize that... South of the airport. Near the corner of ..." and I named the two cross roads, which I had made a point of remembering. He sounded a little gruff, but not angry. "I'll come and get you. Keep the cows away." He explained that, for some reason, and this information was no doubt based on actual experience, the cows liked to rub against downed sailplanes, usually causing considerable damage to the planes in the process. So somehow I made it back to the field, climbed over the fence, and took up my sentinel position at the side of the plane.

Soon, I saw the swift Piper Supercub approaching the field, then turning and heading earnestly down toward the high tension towers, following the same approach that I had made. I can't remember what his decision was regarding the high tension lines, but he was soon side-slipping down and then bouncing along on the dirt clods, the trusty tow rope ring dancing along behind him.

He stopped, climbed out of the plane, sauntered over, wearing his usual striped overalls. I told him the details of what had happened. He listened, nodded, but I got the impression that he approved of my handling of the situation.

He knelt, knees cracking, hooked the ring into the nose hook, told me to lift off as soon as possible, so that he wouldn't have to keep dragging me over the dirt clods, and thus could gain altitude sooner. We weren't all that far from the fence at the end of the field. He did everything rather matter-of-factly, like a guy who comes to tow your car.

When we were each inside our craft, he wagged his rudder, asking if I was ready, telling me he was ready when I was. I wagged the rudder of the 1-26 and off he went, at first bouncing along so badly I thought we really might not be able to attain flying speed. These 1-26s had a flying speed of only around 42 mph, which meant that I could soon pull back on the stick to lift the plane into the air. Then he came off the ground, now we were both climbing, the cows growing smaller beneath us, we were over the fence, climbing, climbing, over the road, up, and up, back into our natural element. I don't know if I attempted to get back into the wave or if I simply returned to the airport.

I have to say at this point because it is important when considering cases like mine, that at no time during the whole adventure could I be said to have been in anything like the morbid despair in which I normally lived. And yet, at least at one point, I was definitely facing the prospect of death. I who normally had no confidence about my performance in even the most ordinary duties and activities of life — managing a group of people, speaking in public, being a good husband, making love to my wife — was here quite confident about myself. Here it didn't matter if someone knew better than I what to do: they couldn't be reached in time anyway. Here I got to run my own show. Here there would be no argument about whether I did the right thing or not: if I survived, I did; if I didn't, I didn't. So my father had been right.

Landing on the Back of a Mountain

My second off-field landing was caused by an optical illusion. I had been sitting in a wave a few thousand feet above Mission Peak when I noticed that several planes below me seemed to be

soaring, motionless, *behind* the Peak. This was unusual, but I thought that there was no reason why the ascending part of the wave couldn't coincide with the ascending air climbing up the back of the mountain, instead of it having to go over the top, and down, and then rise. So, I pushed forward on the stick to get over there with them. Soon I was above them, and noticing that my rate of climb was dropping. Well, I must not be far enough forward, so I pushed forward again on the stick. The rate of climb continued to drop, and now I was over the top of the Peak and behind the mountain. But suddenly, no planes were in sight. The variometer showed an increasingly rapid descent. Unlike the previous off-field landing, here there were woodlands and hills surrounding the few fields that could be seen. Should I keep pressing forward, in hopes that up air would be found way behind the Peak? If it were, then I could ride it up to a sufficiently high altitude so that I could make a dash back through the down, and get onto the western side of the Peak with enough altitude to get back to the airport. But that idea didn't seem wise. The Peak was rising rapidly below me, and I made the decision to try to make a quick dash back over it. I made a 180-degree turn, and headed back toward the mountain. I kept thinking of William Holden in *The Bridges of Toko-Ri*, in which he runs out of altitude in his Korean War jet fighter and can't make it over the last mountain range that separates him from the ocean and safety. I pushed forward on the stick and tried to get as much speed as I could, but the rate of descent was too great. It occurred to me that it wasn't so bad to stall the plane on the back of a mountain because, in effect, the rising ground provided you a landing even though your nose was pointing up. As I write this, I realize that something strange must have been going on: given the normal flow of wave air from east to west, I was in the process of attempting a down-wind landing, a dangerous proposition because your speed over the ground just before you touched down was then flying speed *plus* wind speed. But down I came, heading into the grassy side of the mountain. Again there were cows in the distance. I saw a deep gulley dead ahead (just like in the movie). I knew I had to land on the other side of it. I did, and touched down in the bumpy field. The plane slowed, going slightly uphill, but so strong was the wind (coming in the opposite direction than it should have been, and thus, one would suppose, trying to push me up the mountain) that, despite all my efforts and contrary to what one one would expect, it turned the plane around and sent it back down the mountain, heading straight for the gulley, which was easily 10 or 20 feet deep. I hauled back on the dive brakes and the wheel brake and tried to veer the plane to the side, so it wouldn't just plop into the ditch, and I managed to bring it to a stop a few yards short. Exactly, again, as in the movie, where William Holden lands a few yards from a drainage ditch.

I climbed out and tried to imagine what my reception would be this time when I called the airport. Given the wind, the first order of business was to prevent the plane from being flipped over. So I took the seat cushions out of the cockpit, placed them on the tip of the wing that was upwind, and then found some rocks and piled them on the cushions. The cows seemed to be passing the word that there was a nice sailplane to scratch on in their field, so I started down the mountain in the direction I thought was a road or a house. There were fields, some lined with trees, wooden fences, no building in sight. I found a road, walked along it, and then, down a long driveway, spied what looked like a farmhouse. I walked up to it, began calling if anyone was there. Someone appeared, a maintenance man, I assumed, because the place seemed to be a hideaway of some millionaire. What is it like to live like this, I wondered? Miles from anywhere, near the back of a mountain, an empty house, with merely a handyman going about some mysterious business. I was allowed to make a call. I can't remember the interior of the house, except that it smelled of money and eccentricity. Again Les Arnold on the phone. This time, however, the situation was more serious, or rather more expensive, from his point of view, since there was no way he could

fly in and haul me out. He would have to get a tractor, with a trailer behind. I was to go back and stay by the plane and keep the cows away.

Eventually, more than hour later, he arrived, chugging along in a little farm tractor, with a couple of other guys from the airport standing on it. He once again was impressed that I had kept my head and weighted down the wing. They had to remove both wings in order to put the fuselage on the trailer. They got the wings off and laid them down in the grass, while they put the fuselage in the center of the trailer. Then they got one wing attached to the side of the trailer when suddenly a gust of wind picked up the other wing and sent it tumbling down the side of the mountain. They eventually were able to retrieve it, but it was badly damaged. The whole escapade cost me over $200, but nothing to complain about, I thought, considering that not only did Les have to bring the tractor out but also had to repair the wing.

Another time I landed at the little airport practically next to Sky Sailing on the southern side. I am not sure what the reason was, probably curiosity — could I actually land this plane on another runway? But here, of course, it was no problem to tow me out. Once airborne, all I had to do was glide straight ahead to land on the Sky Sailing runway.

Challenges and Contests

The Soaring Society of America offered various badges and certificates for achievements. One of these was for a five-hour flight. I thought I would try for it, picking a day of steady thermals. Unfortunately, I was able to stay up for only 3½ hours before the lift ran out.

Several times, the Airport would have a series of contests of its own. One I remember was a landing contest, in which you had to land and bring the plane to a stop within a square a few yards on a side. A surprisingly difficult task, as it turned out: either you stopped too short, thinking you had more forward speed than you did, or else you came bouncing along right through the square, the brakes not able to stop you precisely where you wanted.

The Experts

Although there was no such thing as a *professional* sailplane pilot, apart from the instructors, there were amateurs who were definitely expert pilots. Mostly, we knew them as the authors of books, or as subjects of articles in the sailplane magazines. They flew expensive (more than $10,000) high performance planes which they owned and, sometimes, built themselves, and they occasionally set distance or altitude records. A few of these expert pilots occasionally flew from Sky Sailing. I am not sure how many stored their planes in the hangar or how many drove them in on a trailer, but on a good wave day, there they were. The only one I remember was Carl Herrold. I can still see him, on one exceptional wave day, sitting in his expensive white ship next to the hangar, talking to admirers. He was encased inside the fuselage, which was crammed with equipment, black plastic panels with white dials, and oxygen equipment. People asked him questions; he answered them, smiling, explaining. I heard later that the wave that day was so strong that he had soared the entire length of the southern branch of San Francisco Bay, from San Jose down to San Francisco and back, a total distance, probably, of close to 200 miles, and that he had at one point attained an altitude of 21,000 feet. I seem to recall reading about it in one of the local papers, or at least in one of the sailplane magazines. *That* was what a high-performance plane (glide ratio of 45-to-1, or more) in the hands of an expert pilot could do.

These high-performance planes were so well designed that they could fly the length of the runway while staying only a few feet above the ground. If you were standing near the center of

the runway, they would go by, *flying*, *below you*, with the top of the fuselage at about your waist level! The phenomenon that made this possible — in addition to superb design — was called the "ground wave", which was essentially a rotating mass of air that was set up under the wings.

Pilots' Stories

Sailplane pilots weren't given to telling tall tales, or, for that matter, to engaging in very much conversation at all, at least not among the renters. But in the course of the ten or so years that I went soaring from Sky Sailing, I did hear a couple of stories that have stayed in my mind. One was in connection with the famed Sierra Wave, which is the wave that occasionally is set up by the Sierra Nevada Mountains, about a five-hour drive east of the Bay Area. This wave, as the reader can imagine, is much bigger than the ones we experienced as a result of air flowing over the 2,000-foot Mission Peak ridge. The Sierras were well over 10,000 feet high, and the wave that they sometimes created was capable of carrying sailplanes to an altitude of nearly 50,000 feet. In fact, for a while, the world's altitude record for sailplanes was held by two pilots who, wearing pressurized suits had soared to some 47,000 feet in the Sierra Wave.

Anyway, the story was that an Army C-47 — a two-engine transport plane that is essentially a DC-3 (like the plane at the end of the movie *Casablanca*) — was being flown over the Sierras on a day when the Sierra Wave was in full force. Someone in the crew who had been remarking on the altitudes that had been achieved in the Wave by sailplanes began wondering aloud if it might be possible to soar a C-47 in the Wave. And so, I'm sure after some heated discussion, they decided to try it. The pilot positioned the plane so that it was gaining altitude rapidly in the wave. Then he shut off one engine. The plane continued to fly and, in fact, to gain altitude. He then shut off the second engine. Amazingly, the plane, now with both propellors motionless, continued to maintain its altitude. I don't know how long it was before they started the engines again, but the story gives some idea of the enormous power of the Sierra Wave.

Another story, not related to soaring, but amusing nevertheless, was told about one of the military performing groups, I think the Blue Angels. Apparently, they were flying along on the way to some airport when they found themselves between two cloud layers: a ceiling of clouds above, a floor of clouds below, and clear air in between. They spotted some sort of commercial plane in the distance, possibly an airliner, and decided to have a little fun. They immediately did a half roll so that they were now flying upside-down. In this attitude they passed the commercial plane. They heard later, so the story goes, that the airline pilot immediately thought that *he* was flying upside down, and so attempted to roll his plane over so that it would be rightside up. Apparently the truth dawned on him in sufficient time to prevent a major accident.

Fatalities

In the ten-some years I flew at Sky Sailing, I heard of only three fatalities; two were due to egregious pilot error. Every student was told several times in the process of training for his license that you were not allowed to do any ridge soaring until you had been checked out by an instructor. (Every student did a certain amount of ridge soaring as part of his training.) One guy ignored the rule. What apparently happened, according to reports from other pilots, was that he got into a downdraft in one of the little canyons in the front of Mission Peak. This often happened, and the remedy was to turn around immediately and head toward the airport. If you found an updraft on the way back, then you could regain altitude and resume soaring. Otherwise, you landed. But this guy, finding the plane going *down*, began pulling back on the stick, which is what you do to make the plane go up. However, if you keep pulling back on the stick, the air-

speed drops — this is in fact how you stall a plane. The guy forgot this basic fact of his training and, as he kept losing altitude, kept pulling back on the stick. Eventually, the plane stalled. He was then too close to the canyon wall to recover, and he crashed into it and was killed.

Another guy, who had a reputation for breaking the rules, flew too close to the ridge and crashed.

A third guy, whom I vaguely knew, did everything right and still lost his life. He always seemed calm and deliberate and thoughtful, had something of clerkish look about him, wore glasses. He had been considering buying a home-made plane that had been built from one of the kits that were advertised in the sailplane magazines. He took it up for several test flights, each time wearing a parachute as required. But on one of these flights, the plane got into an unrecoverable spin, this being known as a possible risk with that type of plane. He was then near the Nimitz Freeway, above the houses and farmlands. He climbed out and pulled the ripcord. The chute opened and pulled him away from the plane but then the chute caught on the tail of the plane, which was still going around and around, with the result that plane, chute, and pilot hit the ground at a high enough speed to kill him.

An accident that could have been fatal occurred when one of the planes hit a hawk. I remember seeing in the hangar a 1-26 with a huge dent in the front of the right wing. A guy standing nearby told me that he had hit the bird above the ridge at an impact speed that may have been close to 100 mph. But such was the sturdiness of the Schweizer planes that he was able to get back to the airport safely.

Sailplane Days Come to an End

Months passed when I didn't fly. Once or twice I had to renew my license, a very sensible requirement of the FAA. As the sailplane pilots said, "Landings go first." After not flying for several months, it was no problem to fly the plane into the sky behind the tow plane, to resume doing turns and stalls, to find a thermal or some ridge lift. But when you attempted to land, you suddenly realized how much you had forgotten. The seemingly simple routine for flying the downwind leg, starting to apply the air brakes, then turning right for the cross-wind leg, then turning right again into the upwind leg and bringing the plane safely down to the runway, had suddenly become a new experience: either you landed halfway down the field, and had to jam on the brakes, forcing the lineman to help you drag the plane back to the normal parking place just before the halfway point, or else you just barely made it over the fence, and came to a stop a pathetic fifty yards short of the middle, again forcing the tired lineman to run down to you and help you drag the plane to its parking place.

My log shows that my last flight was on Feb. 8, 1974. The Remarks read, "Sunday — clouds looked very good but almost all down; high clouds occasionally obscuring sun; strong south wind; bad landing." In the roughly ten years of my sailplaning career, I had made a total of 177 flights: 9 hours, 35 minutes of them with an instructor, 68 hours, 45 minutes solo.

I still have an occasional recurring dream about those years. In the dream, the airport is situated at the bottom of a cliff that, on the other side, overlooks the sea, the runway almost perpendicular to the cliff bottom, where Les's office is located. Dark green pine trees grow along the top. It is always foggy. I arrive in early morning, look up, wonder about the lift, see a few planes going by. But they are small, stubby, and only a few yards away as they bob along in the cold, sea air. I could reach up and touch them if I wanted. I always have the same anxiety over whether a plane will be available for me so I can join them.

And when, in early spring, I walk out of my house and see the sky full of cloud streets extending to the horizon, the cumulus white on top, gray underneath, with few ragged edges ("voluptuous steam") I still have the old longing to get into the car, drive to the airport, race to the office and breathlessly ask if there is a 1-26 available. And I imagine the guy behind the counter nodding and saying something like, "Well, there's one coming in in about ten minutes. We'll put you down for it," and I know that, for an hour or two, my misery will not exist, and all that will matter will be riding those updrafts, feeling the rush of air all around me, banking so steeply that when I look down the wing I see the ground below me, and other sailplanes, and birds, all going around and around. I imagine climbing so fast that I have to put the plane into a dive not to be swallowed up inside the glorious cold white mist of the cloud, the sun and blue sky above, and I having no doubt that my father would be proud of me.